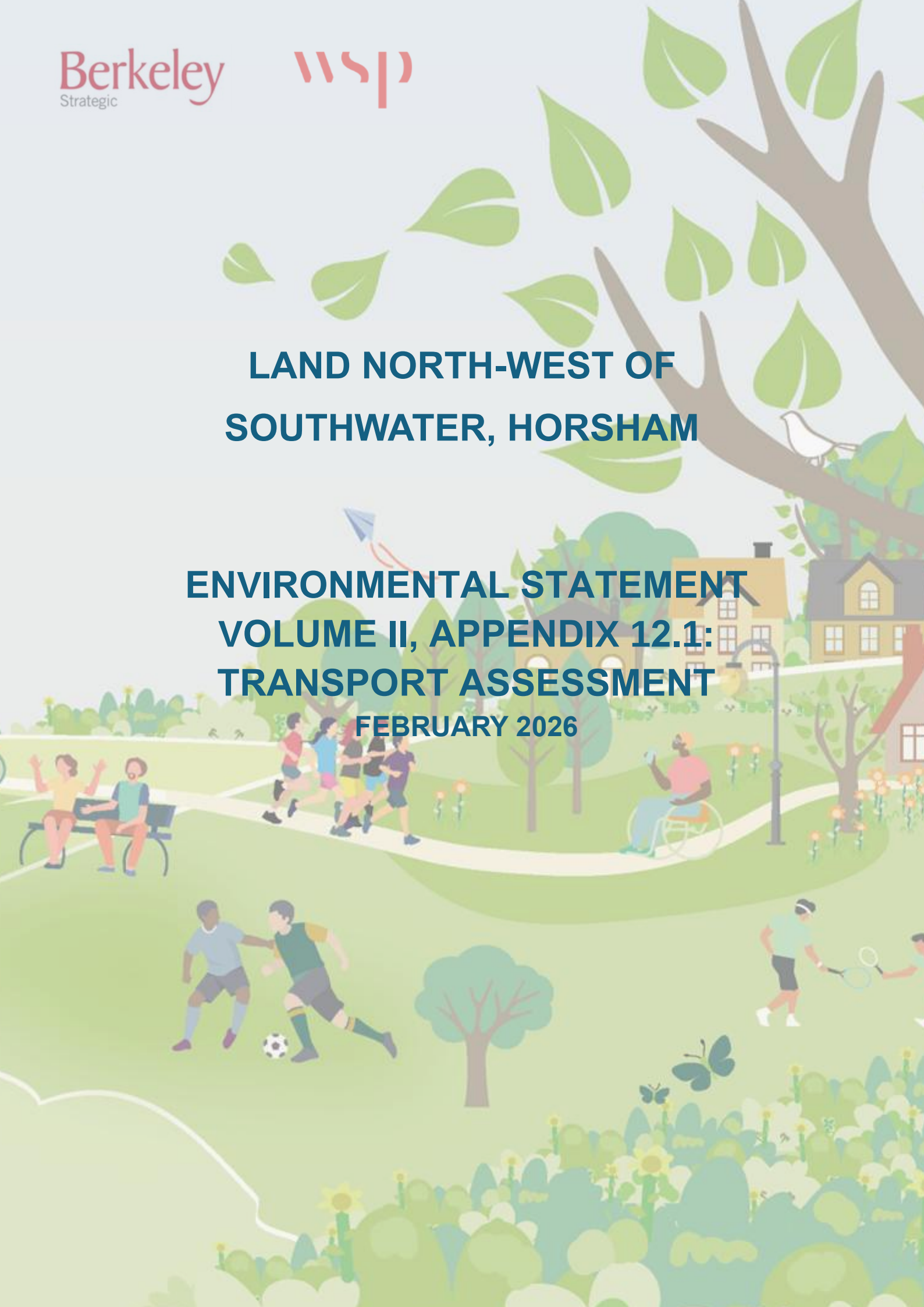
LAND NORTH-WEST OF SOUTHWATER, HORSHAM

ENVIRONMENTAL STATEMENT VOLUME II, APPENDIX 12.1: TRANSPORT ASSESSMENT

FEBRUARY 2026



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1. INTRODUCTION

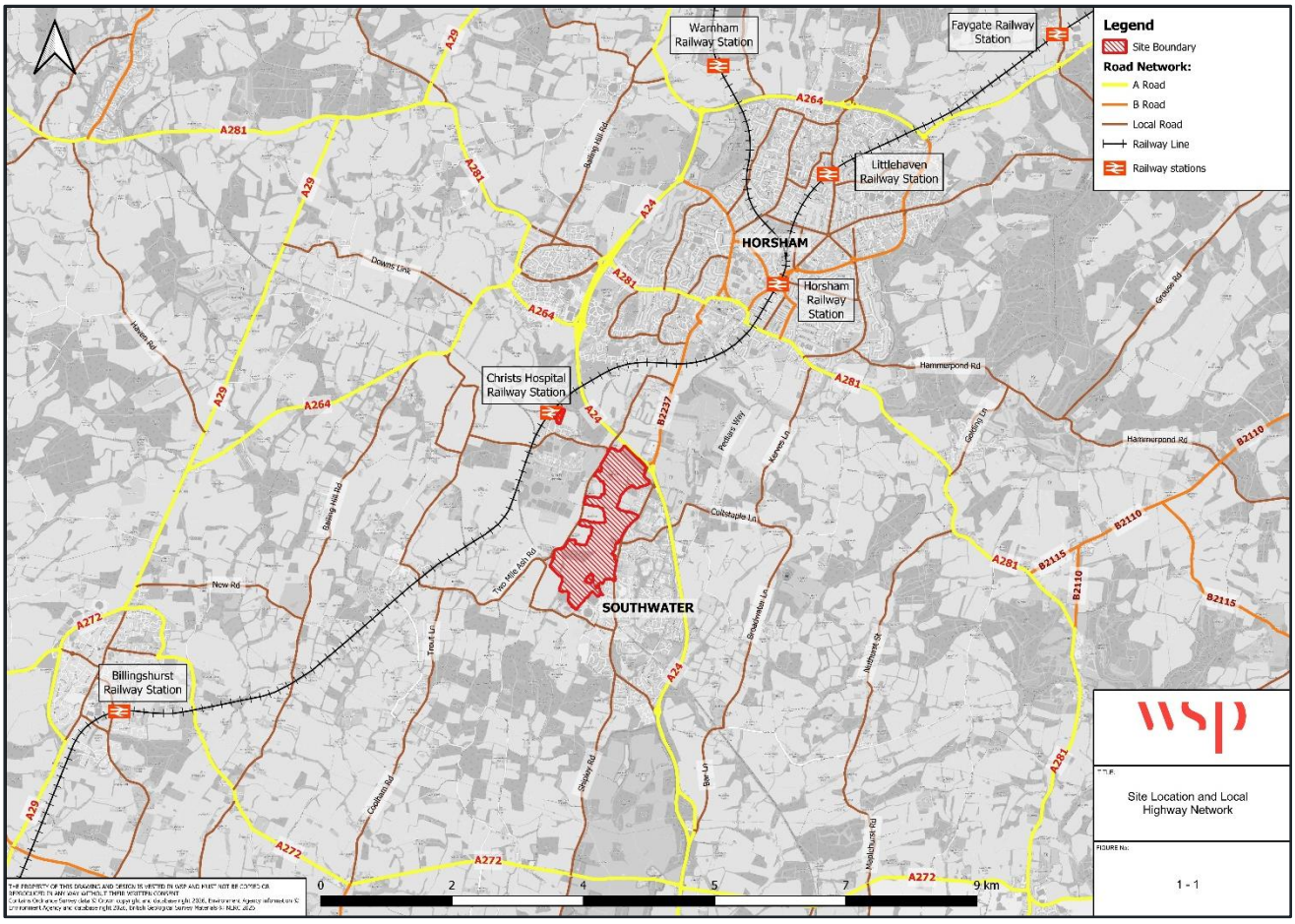
1.1. CONTEXT

1.1.1. WSP has been commissioned by Berkeley Strategic Land Ltd to support in the delivery of the Land North-West of Southwater site (the 'Site'). This application is to provide up to 1,000 homes (Use Class C3), up to 80 specialist accommodation units (Use Class C2), approximately 4ha of employment land, primary and secondary schools and associated facilities.

1.1.2. The Site is located to the west of Worthing Road, Southwater within the administrative boundaries of Horsham District Council (HDC) as Local Planning Authority (LPA) and West Sussex County Council (WSCC) as Highway Authority (HA). The Site is located to the north of the 'Broadacres' development, which has planning consent for 540 dwellings and 54 Retirement Living homes and is currently under construction.

1.1.3. The location of the Site and Local Highway Network are shown in **Figure 1-1** below, full scale versions are provided at the back of this document.

Figure 1-1 - Site Location and Local Highway Network



1.1.4. With the exception of two clusters of farm buildings and two residential properties, the Site currently comprises undeveloped land, predominantly used for agricultural purposes. There are various existing agricultural accesses onto the Site from the highway network, along with additional Non-Motorised User (NMU) accesses at the location of Public Rights of Way (PRoWs) that run through the Site.

1.1.5. The description of the Proposed Development is as follows:

> *"Outline planning application, with all matters reserved (except for primary access to the highway) for a phased development comprising: the demolition of existing buildings and the construction of residential dwellings (including affordable housing) (Use Classes C2 and C3); a mixed-use neighbourhood centre (Use Classes E and F); education facilities (Use Class F1(a)); business and employment floorspace (Use Classes B2, B8 and E(g)); redevelopment of existing agricultural buildings including construction of a building for community use (Use Classes E and F2); improvements to public rights of way; sports pitches; gypsy and traveller pitches/plots; public open space; landscaping, and associated infrastructure."*

1.1.6. Whilst the application includes 'up to' 1,000 dwellings, the assessments set out herein are based on the assumed delivery of the full 1,000 dwellings (plus the additional uses as set out in the description of the Proposed Development) for robustness.

1.1.7. The application is in outline form with all matters reserved except site access arrangements. Five new primary vehicle accesses will connect the site to the highway network: two on Worthing Road, one from the northern part of Chessall Avenue, an access to the west onto Two Mile Ash Road and finally a Gypsy and Traveller access to the south east of the new northern roundabout. Various NMU-only access points would also be provided to / from the Site, including new or upgraded existing PRoWs.

1.1.8. The Site is well located with respect to access to the existing transport network, including the strategic and local highway network and public transport network, as well as with respect to existing local facilities. The transport network in the vicinity of the Site and the accessibility credentials of the Site to local facilities will be further enhanced as part of the Proposed Development, either through full implementation or contributions, as summarised below:

- In line with WSCC's A24 Corridor Enhancement Study, the Hop Oast roundabout would be fully signalised to allow for safe crossing of pedestrians and cyclists across the A24 and to increase capacity of the junction for motorised vehicles.
- A detailed Walking and Cycling Strategy has been developed for the Proposed Development. This strategy features new and improved routes within the Site, as well as upgrades to existing routes off-site. Notably, it will create a link to National Cycle Route 223 (the 'Downs Link'), which crosses the Site. Financial contributions can also be used to support enhancements to the Downs Link. Furthermore, several important off-site walking and cycling routes, such as those leading to Horsham Town Centre and Christ's Hospital, could benefit from infrastructure improvements with funding of these to be agreed with WSCC.

- The Public Transport Strategy in this TA aims to maximise the Site's public transport accessibility. It highlights upgrades to Metrobus service 98 being delivered by others, which will provide benefits to the Proposed Development by offering a high frequency service, and sets out the opportunity for further enhancements to route 23 providing improved connections to Horsham and further afield into Crawley. The masterplan has been designed to accommodate buses to directly serve the new school and employment site if needed.
- The mixed-use nature of Proposed Development inherently enhances the accessibility credentials of the Site, enabling future (and existing) residents of the area to access key day to day amenities, such as retail, employment, education and leisure facilities. Notwithstanding this, these on-site facilities would not detract from the existing facilities within Southwater (including those at Lintot Square).
- Car parking would be provided on-site fully in accordance with relevant local standards. The car parking strategy will ensure that the projected demands of the proposed development are accommodated on-site and within designated car parking areas, whilst not otherwise discouraging from use of non-car modes of travel. The car parking strategy would be addressed in full at the reserved matters stage.
- Electric vehicle charging will be provided on-site. The exact quantum and type of provision will be determined at the reserved matters stage with reference to the latest relevant policy and best-practice guidance at that time.
- Cycle parking would be provided on-site, fully in accordance with local standards. And;
- A Framework Travel Plan, setting out potential measures and targets for minimising single occupancy car use, has also been provided as a standalone document as part of the application and should be read in conjunction with this TA. It is anticipated that Full Travel Plans associated with each land use (e.g. residential, educational, employment etc) will then be provided alongside any reserved matters applications, particularly at both schools and employment uses when operators are known.

1.1.9. Further details relating to the above matters are set out in the subsequent sections of this TA.

1.2. BACKGROUND AND PURPOSE OF REPORT

1.2.1. A number of assessments pertaining to the transport aspects of the proposed development have previously been undertaken by WSP. This includes work undertaken as part of WSP's previous 'Site Access Strategy' (June 2019) document, which assessed the overall highway impacts for Land North-West of Southwater based on an assumption of c.1,900 homes, employment uses and a secondary school.

1.2.2. WSP also undertook a separate assessment of the highway impacts of 450 homes at part of the site as part of the draft Southwater Neighbourhood Plan (September 2018).

1.2.3. Finally, in the summer of 2022 WSP submitted a Transport Assessment to support a Planning Application on the Site for the following development proposals

''Outline application with all matters reserved for a mixed-use strategic development to include up to 1,500 dwellings, up to 15,750 sqm (GIA) of flexible employment space (Use Classes E/B2/B8), up to 2,900 sqm (GIA) flexible community facilities (Use Classes E/F1/F2); education facilities; sports facilities; 5 gypsy and traveller pitches; public open space; landscaping and related infrastructure."

1.2.4. This TA has been prepared to support the transport strategy of the Proposed Development and sets out matters including Site access by vehicular and non-vehicular modes, projected multi-modal trip generation associated with the Proposed Development, the Walking and Cycling Strategy and Public Transport Strategy and the projected traffic impact of the Proposed Development on the local highway network, including any necessary mitigation measures to off-set the Proposed Development. These elements are considered alongside relevant local and national policy and best practice guidance.

1.2.5. This application will utilise much of the agreed approach and methodology used within the previous transport assessment including addressing key comments focusing on the off-site Walking and Cycling Strategy, off-site mitigation and Public Transport Strategy.

1.3. CONSULTATION

1.3.1. WSP have been in consultation with West Sussex County Council (WSCC) highways as part of pre-application discussions. The consultation included a meeting in July and an on-site meeting in September. The discussions in July agreed the key transport elements associated with the associated with the Proposed Development, as well as the assessment methodologies set out herein. These discussions included matters such as the proposed trip generation methodology and the scope of junction assessments that would be included as part of this TA. The on-site meeting included a walkover of the proposed Walking and Cycling strategy which is detailed within Chapter 6 of this document.

1.3.2. Furthermore, WSP have shared a scope of assessment with National Highways (NH) in their role as the highway authority of the strategic road network (SRN). As the development is a significant distance from the SRN a specific section on the forecast impact included in Section 9.5 of this document.

1.3.3. Finally, pre-application discussions were undertaken with Active Travel England in their role as a statutory consultee. This included detailing the Active Travel infrastructure audit undertaken alongside the walking and cycling strategy. A response was received from Active Travel England in the beginning of February and as such respond to all those comments has yet be undertaken in detail.

1.3.4. The key pre-application dialogue with the WSCC, NH and ATE is included at **Annex A** and discussed further at the relevant sections of this TA.

1.4. REPORT STRUCTURE

1.4.1. The remainder of the TA report is presented in the following Sections, classified as ‘Chapters’:

- Chapter 2: Provides a review of relevant policy documents;
- Chapter 3: Reviews the existing conditions of the transport networks in the vicinity of the Site;
- Chapter 4: Accessibility to local facilities and Active Travel England Assessment
- Chapter 5: Provides a summary of the development proposals, including the proposed parking strategy;
- Chapter 6: Provides the proposed Walking and Cycling Strategy;
- Chapter 7: Provides the proposed Public Transport Strategy;
- Chapter 8: Outlines the projected trip generation associated with the Proposed Development;
- Chapter 9: Assesses the impact of the Proposed Development on the operational capacity of the local highway network;

- Chapter 10: Sets out the proposed mitigation strategy;
- Chapter 11: Sets out the projected impact and mitigation strategy in respect to construction and phasing;
- Chapter 12: Summaries and concludes this Transport Assessment.

2. POLICY CONTEXT

2.1. INTRODUCTION

2.1.1. This section summarises the relevant policies and best-practice guidance at a national, regional and local level that has been considered when preparing this TA.

2.2. NATIONAL POLICY

NATIONAL PLANNING POLICY FRAMEWORK (NPPF), DECEMBER 2024

2.2.1. The National Planning Policy Framework (NPPF) was updated in December 2024 and sets out the Government's planning policies for England and how these are expected to be applied. The document supports the promotion of sustainable transport, which the proposals aim to achieve.

2.2.2. The list of paragraphs that are relevant to this application are as follows:

- Paragraph 10 – the heart of the framework is to provide sustainable development;
- Paragraph 109 – transport issues should be considered during the earliest stages of plan making, ensuring opportunities to promote walking, cycling and public transport use;
- Paragraph 110 – development should be focused on locations which are or can be made sustainable by limiting the need to travel and offering a genuine choice of transport;
- Paragraph 111 – large developments to provide a mix of land uses to minimise journeys. Provide active travel strategy and provide investment in sustainable travel:
- Paragraph 115 – sustainable transport modes are prioritised and safe and suitable access is provided for all users:
- Paragraph 116 & 117 – developments should prioritise pedestrian and cycle movements, both within the scheme and neighbouring areas and access to high quality public transport; and
- Paragraph 118 – details the requirement to provide a travel plan and a transport statement or assessment.

2.3. LOCAL POLICY (WEST SUSSEX COUNTY COUNCIL – WSCC)

2.3.1. Transport policies within WSCC are set out within a suite of documents that sit under the framework of the West Sussex Transport Plan 2022-2036 (WSTP). A selection of the key documents relevant to the scheme (as set out therein) are listed below:

- **WSCC Road Safety Framework (2016-26) – updated to WSCC Road Safety Strategy (2025-2036)** - outlines WSCC's vision for road safety.
- **WSCC Bus Strategy (2018-2026)** - sets out WSCC's aims and objectives for local bus and community transport in West Sussex,
- **WSCC Active Travel Strategy (2024-2036)** - outlines WSCC's aims and objectives for active travel in West Sussex,
- **WSCC Electric Vehicle Strategy (2019-2030)** – presents WSCC's strategy to increase take up of electric and ultra-low emission vehicles: and,
- **WSCC Rights of Way Management Plan 2018-2028** - details WSCC's approach to managing the Public Rights of Way (PRoW) network.

2.3.2. A review of the WSTP itself is provided below. As and when the above documents are updated periodically, these will take into account the most up-to-date version of the WSTP.

WEST SUSSEX TRANSPORT PLAN (WSTP) 2022-2036, APRIL 2022

2.3.3. The West Sussex Transport Plan 2022-2036 (WSTP) was adopted by WSCC on 1st April 2022 and supports delivery of WSCC's transport plan and priorities. "

2.3.4. The overarching vision of the WSTP highlights the need to address the spatial economic challenges of the County. To make the transport network safer, more efficient and resilient with more walking, cycling and public transport opportunities.

2.3.5. The WSTP sets out five 'thematic' and eight "area transport" strategies in order to achieve the vision. The thematic strategies comprise:

- **Active Travel Strategy** - facilitating greater use of active travel modes (e.g. walking and cycling);
- **Shared Transport Strategy** - facilitating a more efficient and customer focused bus network, using community transport and new mobility solutions where possible and viable;
- **Rail Strategy** - identifying priorities that will help the rail network to perform a strategic role in the transport network;
- **Access to Gatwick Airport Strategy** - supporting initiatives that will increase sustainable transport mode share;
- **Road Network Strategy** - enabling increased use of electric vehicles and sustainable modes of transport. Improve the efficiency of the most strategically important local roads and provide facilities for active travel and shared transport services.

2.3.6. The full list of short, medium and long term strategies for the Horsham area and relevant to the Development are detailed below:

"Short term (2022-27) priorities for the Horsham area and relevant to the Development (excluding SDNP)

- *Bus Priority at signal-controlled junctions.*
- *Bus and rail interchange improvements.*
- *Flexible shared transport services.*
- *Mobility Hubs.*
- *Active travel infrastructure 'quick wins'.*
- *Small scale 'tactical' highway improvements.*

Medium term (2027-32) priorities for the Horsham area and relevant to the Development (excluding SDNP)

- *Enhanced bus priority in Horsham.*
- *A24 junction improvements (including shared transport and active travel facilities)*
- *North – south sustainable transport corridor connecting key settlements such as Worthing, Horsham and Crawley.*
- *Active travel priority routes.*
- *Active travel crossing infrastructure on the A24.*

Long term (2032-36) priorities for the Horsham area and relevant to the Development (excluding SDNP)

- *Potential local highway enhancements (subject to need).*
- *Active travel priority routes.*
- *Implement scheme for A264 from study recommendations."*

2.4. LOCAL POLICY (HORSHAM DISTRICT COUNCIL / SOUTHWATER PARISH COUNCIL)

2.4.1. Transport policies within Horsham district are set out within a number of documents that sit under the framework of the Horsham District Planning Framework (HDPF).

HORSHAM DISTRICT PLANNING FRAMEWORK (HDPF) – EXCLUDING SOUTH DOWNS NATIONAL PARK (SDNP), NOVEMBER 2015

2.4.2. Paragraph 3.14 of this document sets out spatial objectives relevant to the development, including the following:

- *"Ensure that future development in the district is based on sustainable development principles that strike the correct balance between economic, social and environmental priorities and delivers living, working and balanced communities which contribute to community cohesion.*
- *To locate new development in sustainable locations that respect environmental capacity and which have appropriate infrastructure, services and facilities in place, or where these can realistically be provided; and to encourage the appropriate re-use of brownfield sites in sustainable locations.*
- *To protect, enhance and, where appropriate, secure the provision of additional accessible community services, facilities, open spaces and infrastructure throughout the district in accordance with local and district needs.*

2.4.3. The document outlines a series of policies to follow, a summary of each outlined below:

- Policy 33 (Development Proposals) – ensure that areas are attractive for the parking of vehicles and cycles without dominating the development.
- Policy 35 (Climate Change) – Development will aim to reduce travel and encourage walking and cycling and include good to accessibility.
- Policy 39 (Infrastructure Provision) - development will be dependent on there being sufficient capacity in the existing local infrastructure to meet the additional requirements arising from new development, or suitable necessary mitigation arrangements for the improvement of the infrastructure, services and community facilities.
- Policy 40 (Sustainable Transport) – improvements sustainable transport services, provides safe access to the Site for all users and that the development provides a Travel Plan.
- Policy 41 (Parking) - Adequate parking and facilities must be provided within developments to meet the needs of anticipated users

HORSHAM DISTRICT LOCAL PLAN 2023-2040 - REGULATION 19, JANUARY 2024

2.4.4. The Horsham District Local Plan looks to prioritise *"Non-car-based transport including walking, cycling and community transport services are prioritised to help reduce the reliance on private motorised vehicles and contribute to low carbon based futures and healthy lifestyles. The transport infrastructure, especially the active travel network and public transport, is continually improved to offer high-quality, walking and cycling facilities and reliable and frequent public transport services..."*.

2.4.5. The document outlines a series of Policies for developments within Horsham District Local Plan 2023-2040 – Regulation 19 to follow, a summary of each outlined below:

- Policy 24 (Strategic Transport) – Developments need to focus on active travel improvements, enhancements to sustainable transport services where possible. Development should aim to minimise travel through providing for home working and providing day to day work, shopping and leisure within walking and cycling distances.
- Policy 25 (Parking) – Cycle and vehicle parking should be provided at the development aligned with the West Sussex County Council Guidance on Parking at New Developments document. The cycle parking should be of high quality is both secure and at least as convenient as car parking. Car Parking facilities will be expected to provide electric charging points to ensure that the increasing number of electric vehicles can be supported.

2.4.6. The Proposed Development is included as Strategic Policy HA3: Land North West of Southwater within the Local Plan. The Proposed Development will aim to deliver a mix-use strategic development and associated infrastructure for 1000 homes. The allocation requires around 4.0 ha of employment land, contributions towards a one form entry primary school (Expandable to 2) and 6 form entry secondary school. Both schools will incorporate support centres for special educational needs and disability (SEND) and a neighbourhood centre. The development is required to provide a comprehensive Transport Strategy which includes a walking, cycling and public transport strategy. In regard to highway mitigation, the policy details the need for upgrades to the Hop Oast roundabout (signalisation) to allow safe crossing of pedestrians and cyclists north to Horsham, provide a new link road between the Development and Hop Oast Roundabout and provide four vehicular access points. The policy also details the requirement for providing a new car park and cycle storage at Christ's Hospital Station.

SOUTHWATER NEIGHBOURHOOD DEVELOPMENT PLAN – REFERENDUM VERSION (2019-2031), AUGUST 2020

2.4.7. The Southwater Neighbourhood Development Plan (SNDP) was prepared by Southwater Parish Council and sets a framework to guide residents, local authorities and developers as to how the community wish to shape future development between 2019 and 2031. The SNDP was 'made' in June 2021 and forms part of the Development Plan for the determination of planning applications in the Southwater Parish.

2.4.8. The document outlines a series of Policies for developments within Southwater Parish to follow, a summary of each outlined below:

- Policy SNP1.1 (Core Principles) – development should be within walking distance of Lintot square and improve access to key transport links;
- Policy SNP4 (Keeping our roads moving) – development should not result in a serve safety impact, should provide highway mitigation measures where required and provide traffic calming measures from an early stage;
- Policy SNP13 (NMU Enhancements) – propose new or improved routes for Non-Motorised Users
- Policy SNP14 (Car Parking) – car parking provision expected at new developments. It should be noted that the development plan car parking provision differs to that set out within the West Sussex Guidance on Parking at New Developments (September 2020), and
- Policy SNP15 (Electric vehicle charging infrastructure) - electric vehicle charging infrastructure, aligning with West Sussex Guidance on Parking at New Developments guidance which looks to provide passive charging at all spaces.

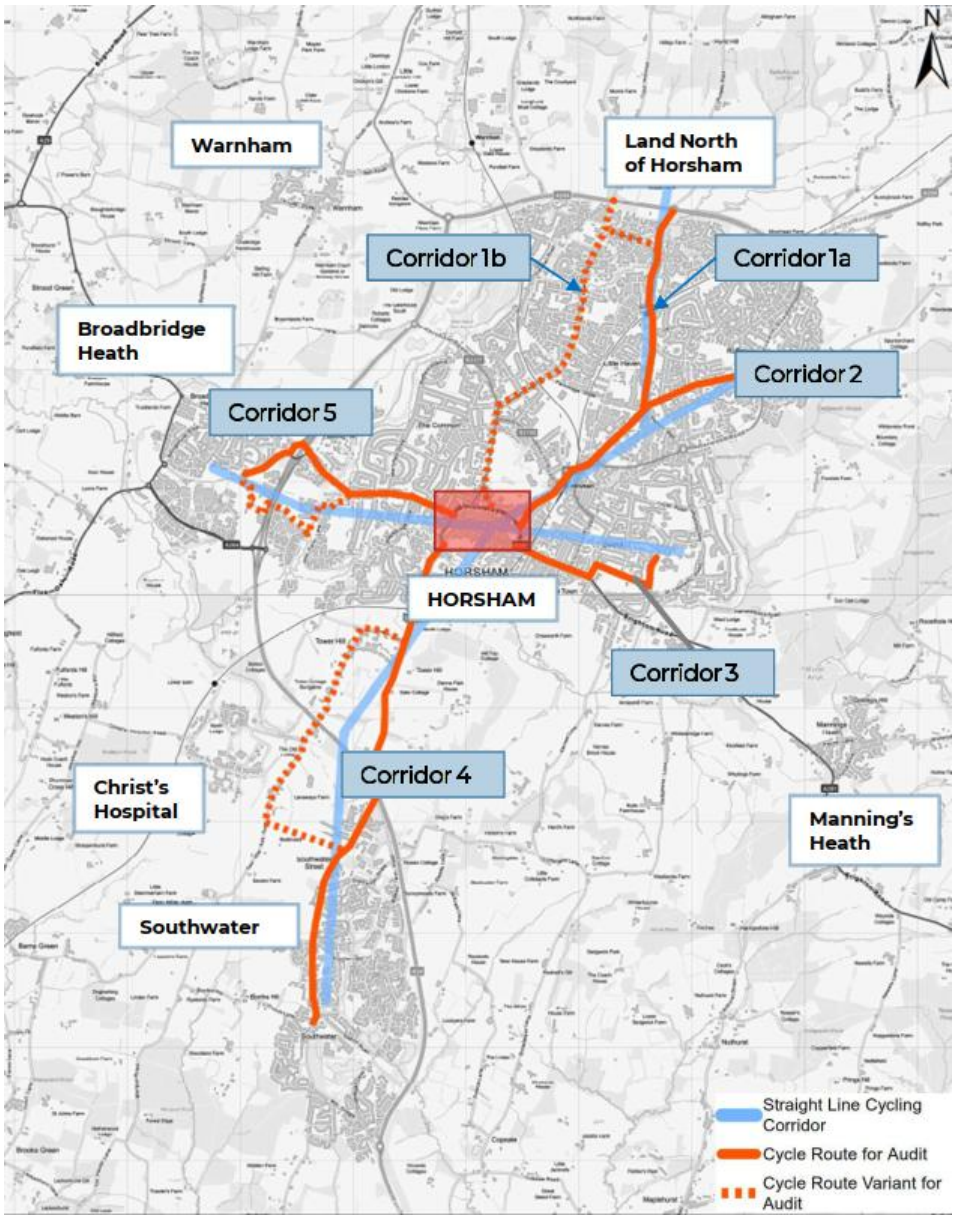
HORSHAM LOCAL CYCLING AND WALKING INFRASTRUCTURE PLAN (LCWIP), OCTOBER 2020

2.4.9. The LCWIP was adopted by HDC in December 2020 and sets out “a new strategic approach to identifying cycling and walking improvements required at a local level” and seeks to assist in making cycling and walking “the natural choice for most short journeys, and to access public transport for longer journeys”.

2.4.10. The LCWIP sets out (page 3) a number of ways in which it is intended to be utilised, including forming the basis for securing improvements to the strategic cycling and walking networks as part of planning permission for new developments.

2.4.11. The LCWIP identifies five key cycling corridors in the Horsham area, one of which (Corridor 4) comprises the corridor between Southwater and Horsham Town Centre, as shown on the following figure extracted from page 12 of the LCWIP.

Figure 2-1 - LCWIP Cycling Corridors (Page 12 of LCWIP)



2.4.12. Key findings in relation to the cycling audit include lack of cycle infrastructure, a narrow rural road corridor enclosed by vegetation, high traffic flows and a 40mph speed limit on parts of Worthing Road. The lack of grade separate or signalised crossing facilities at the A24 / Hop Oast roundabout is also highlighted as an issue.

2.4.13. Various findings in respect to local walking routes are also identified in relation to Corridor 4, including sections with no footway provision, or with narrow and / or non-continuous footways, and a lack of crossing provision at the A24 / Hop Oast roundabout. The southern section (i.e. within and immediately north of Southwater) is considered most relevant to the Site. The relevant LCWIP extract of this section is shown below.

2.4.14. Various potential options are set out in the LCWIP in respect to improving the cycling and walking infrastructure along this corridor. Given insufficient highway width, the LCWIP states that it is not possible to construct a continuous cycleway (or shared use path) along the entire length of Worthing Road whilst maintaining two lanes of traffic. Alternative cycle route options are therefore set out at page 37 of the LCWIP, comprising:

1. An eastern route via Southwater Street, Coltstaple Lane and public bridleways (including Lovers' Lane).
2. Routes running broadly parallel and adjacent to Worthing Road.
3. Routes to the west of Worthing Road, crossing the rail line via Needles Estate or Highwood Mill, potential utilising part of Tower Hill.

2.4.15. The LCWIP states that option 1 above *"may have the greatest potential"*. Similar constraints and alternative options are identified in the LCWIP (page 38) in respect to pedestrian infrastructure.

2.4.16. The following cycling improvements are set in the LCWIP (page 40):

Figure 2-2 - Corridor 4 - LCWIP Cycling Improvements (Page 40 of LCWIP)

Location	Proposed Infrastructure Improvements (subject to subject to further study, feasibility and consultation)
Ref 4.5 (Figure A8 Lintot Square to Southwater Street (via Cedar Drive and connecting residential streets)	*Context: North-south connections to the east of Worthing Road currently comprising a combination of some low traffic flow roads, some higher traffic flow roads and traffic-free paths.* • Consider an area-wide 20mph speed limit on residential streets to reduce motor vehicle speeds, with supporting physical traffic calming measures as appropriate. • Construct off-road cycle infrastructure along Cripplegate Lane and Cedar Drive between Station Road (South) and Easteds Lane, where traffic flows are higher. • Install lighting on Easteds Lane route, potentially using low-level solar studs if appropriate. • On connecting paths within the residential estates, review barriers and introduce a design that enables all categories of cycle to use the route, such as bollards. • Enable contraflow cycling on one-way section of Station Road (South) and widen footway for shared-use by cyclists and pedestrians.
Ref. 4.6 Southwater Street and Coltstaple Lane	*Context: These are public highways likely to have at least 2,500 vehicles per day, with limited scope to divert traffic onto alternative routes. The section west of the A24 overbridge has a 30mph speed limit and the section to the east of the overbridge has a 40mph speed limit. There is limited natural surveillance and no street lighting. These lanes score poorly in the cycle route assessment.* • Further work required to establish the feasibility of an off-carriageway, all-weather surface, path for this section. This may require agreement with third party land to achieve an appropriate route. • If a suitable alignment cannot be identified then an alternative may be to route via Reeds Lane. This would require a new grade-separated crossing (overbridge or underpass) of the A24. This is likely to require some land allocated in the Southwater Neighbourhood Plan Submission Version as local open space to achieve this.
Ref. 4.6 Pedlar's Way and Lovers' Lane	*Context: these are public bridleways with unsurfaced sections which are currently rutted, uneven and unsuitable for use by most cyclists or pedestrians.* • Work with private landowners to agree package of improvements to enable all-year, all-weather use of the public bridleway alignments. This should comprise a path of at least 3.5m wide and improved surface. Suitable means of illumination should also be considered, to enable use during hours of darkness, potentially using solar studs.
Ref. 4.6 Queensway or Chesworth Lane and Denne Road	*Context: Two alternative routes towards the town centre, on largely residential streets with 30mph speed limits and lower traffic flows.* • Consider introduction of 20mph speed limit, with supporting physical traffic calming measures if appropriate.

2.4.17. The following walking improvements are set in the LCWIP (page 39):

Figure 2-3 - Corridor 4 - LCWIP Walking Improvements (Page 39 of LCWIP)

Location	Proposed Infrastructure Improvements (subject to subject to further study, feasibility and consultation)
Ref. 4.3 (Figure A9) Worthing Road, Southwater (Lintot Square to Blakes Farm Road Roundabout	*In terms of potential walking route improvements on Worthing Road within Southwater:* • Redesign wide side road crossings to reduce vehicle turning speeds and minimise crossing distances. Introduce priority for pedestrians where footways cross lightly trafficked side roads, with raised tables for level crossing. Consistently install tactile paving to current standards. • Redesign the Worthing Road / Fairbanks Road signal-controlled junction to provide the pedestrian crossings on the desire line. • Redesign the Worthing Road / Southwater Street junction, to accommodate north-south crossings on the pedestrian desire line. • Review, and if required, amend pedestrian refuges on all arms of the Worthing Road / Blakes Farm Road / Fletchers roundabout, to ensure there is suitable usable width for all users. • Cut back overhanging vegetation to widen usable footway width. • Widen narrow footway sections, potentially with sections of priority working and using highway grass verges to achieve this. Highway width constraints mean that some sections of narrow footway, or sections without footway on both sides, may remain unless one-way arrangements were introduced for motor vehicles. • Identify opportunities to provide additional controlled crossings on Worthing Road, potentially in association with any future residential developments. • Identify opportunities to complete any missing sections of footway along Worthing Road, potentially in association with any future residential developments.
Ref. 4.4 (Figure A11) Worthing Road, Horsham	*In terms of potential walking route improvements on Worthing Road within Horsham:* • Redesign wide side road crossings to reduce vehicle turning speeds and minimise crossing distances. Introduce priority for pedestrians where footways cross lightly trafficked side roads, with raised tables for level crossing. Consistently install tactile paving to current standards.

2.4.18. A review of the Proposed Development alongside the findings and recommendations of the LCWIP are set out later in this TA as part of the Walking and Cycling Strategy. In particular, potential schemes have been considered in relation to Two Mile Ash Road and Southwater Street / Lovers Lane, which WSCC could seek to implement in order to improve walking and cycling connectivity between Southwater and Horsham.

2.5. COMPLIANCE OF PROPOSED DEVELOPMENT WITH POLICIES

2.5.1. The Proposed Development is well aligned with the National policy documents and individual policies outlined above with the polices outlining the need for increased active and sustainable transport options and reducing the reliance on the private car.

2.5.2. Regarding Local policies the development aims to deliver on the requirements set out within the Strategic Policy HA3 by developing a masterplan delivers on the sustainability requirements, importantly through the provision of a Walking and Cycling Strategy, a Public Transport Strategy and inclusion of a Travel Plan. The development will propose highway mitigation where required to alleviate congestion on the network, including suitable contributions to the delivery of a fully signalised Hop Oast Roundabout. A potential expansion of Christ's Hospital Station Car Park is included in the policy is considered within the Development Proposals in Chapter 5.

2.5.3. **Table 2-1** below presents the Proposed Development Local Policy compliance.

Table 2-1 – Proposed Development Local Policy Compliance

Policy	Does the Proposed Development Compile
Policy 33 (HDPF) - Development Proposals	At the Reserved Matters stage, it will be ensured that the development will not be dominated by parked cars
Policy 35 (HDPF) - Climate Change	The principles of the masterplan are built around walking and cycling accessibility across the development and into Southwater
Policy 39 (HDPF) - Infrastructure Provision	The development proposals will provide key facilities including a primary and secondary school and a local centre to support the new residents.
Policy 40 (HDPF) - Sustainable Transport	The development will provide a Public Transport Strategy which details the improvements to sustainable transport provided by the development.
Policy 24 (HDLP) - Strategic Transport	The development will provide a Walking and Cycling and Public Transport Strategy, alongside a Travel Plan with aim of providing alternative modes of transport. The on-site employment will aim to reduce the amount of external vehicular trips to employment opportunities
Policy 25 (HDLP), Policy 41 (HDPF) – Parking	The development will provide car parking and cycle parking in line with the current latest standards which are the West Sussex County Council Guidance on Parking at New Developments, this will be detailed and agreed at the Reserved Matters applications.
Policy 1.1 (SNP) - Core Principles	The development is within walking distance of the facilities at Lintot Square and will provide its own facilities.
Policy 4 (SNP) - Keeping our roads moving	The development will look to provide highway mitigation to alleviate the impact of the development, including improvements at the Hop Oast Roundabout
Policy 13 (SNP13) - NMU Enhancements	The development will provide a Walking and Cycling Strategy which details the improvements to NMUs provided by the development.
Policy 15 (SNP) – Electric Vehicle Charing	The development will provide for EV charging infrastructure at each property this will be detailed and agreed in the Reserved Matters applications

2.5.4. Subject to the position of relevant planning policies at the Reserved Matters stage, there is the potential that the Site will not comply with the SNDP on Car Parking (Policy SNP14). The West Sussex car parking standards are the most up to date requirements and are considered the be the most appropriate at this time.

2.5.5. Notwithstanding Policy SNP14, the TA shows the Proposed Development, and its mitigation approach are consistent with local guidelines for walking and cycling, particularly as outlined in the LCWIP.

3. EXISTING CONDITIONS

3.1. INTRODUCTION

3.1.1. This Chapter outlines the existing conditions in the vicinity of the Site including the local walking and cycling conditions, and the existing public transport services.

3.2. SITE LOCATION AND EXISTING USE

3.2.1. The Site is located to the northwest of the centre of Southwater and the main part of the Site broadly extends between the A24 to the north, Two Mile Ash Road to the west, Chessall Avenue (serving the Broadacres site) to the south and Worthing Road to the east. There is a separate section of the Site immediately to the east of Christ's Hospital rail station. There are a number of existing properties along Worthing Road and Two Mile Ash Road that fall outside of the Site and abut the Site boundary in these locations.

3.2.2. The centre of Southwater is located approximately 1km to the southeast of the centre of the Site while Horsham Town Centre is located approximately 3.5km to the northeast of the centre of the Site. Crawley is situated some 15km to the northeast of the Site. The Site is situated immediately to the north of the 'Broadacres' development, which has planning consent for 540 dwellings and 54 Retirement Living homes and is currently under construction.

3.2.3. With the exception of two clusters of farm buildings and two residential properties, the Site currently comprises undeveloped land, predominantly used for agricultural purposes. There are various existing gated agricultural accesses onto the Site from the highway network, along with additional Non-Motorised User (NMU) accesses at Public Rights of Way (PRoWs) that operate through the Site.

3.3. LOCAL HIGHWAY NETWORK

3.3.1. **Figure 1-1** shows the Site location in relation to the local highway network. Corresponding descriptions of key local roads and their associated characteristics and NMU infrastructure in are provided below.

A24

3.3.2. The A24 is a key strategic road corridor which provides links to the wider strategic highway network, including the A264, A272, and A27. Near Southwater, it is a lit dual carriageway with access to the Site via the Hop Oast roundabout. Pedestrian facilities are limited: there are no footways along most of the A24 except just south of the roundabout, where paths connect to Worthing Road and Blakes Farm Road. Crossing options are minimal, with only a poorly marked priority crossing available.

WORTHING ROAD (SOUTH OF A24)

3.3.3. Worthing Road operates as a single carriageway local distributor road and broadly comprises two sections; north and south of the A24 respectively.

3.3.4. The southern section of Worthing Road operates in a general north to south alignment between the A24 / Worthing Road junction (Hop Oast roundabout) at its northern end and the Mill Straight / Worthing Road / Shipley Road junction at its southern end. The road serves as the main route through Southwater and provides access to local roads and residential streets along its length, including Cedar Drive, Chessall Avenue, Southwater Street, and Blakes Farm Road.

3.3.5. As well as providing connections to adjoining roads within Southwater, the road also accommodates a range of properties with direct frontage access, including a number of residential properties, food stores, and a petrol filling station. It also provides access to Southwater Infant Academy and Southwater Junior Academy and to Fairbank Road, which in-turn serves the local centre of Lintot Square.

3.3.6. Worthing Road is a two-way single lane carriageway with a width typically between 6m and 7m. The majority of the road is subject to a speed limit of 30mph, although the northern and southern parts of the road outside of the built-up area of Southwater are subject to a 40mph posted speed limit. The road is well lit along its entire length. Some sections of Worthing Road accommodate relatively short sections of traffic calming measures, including kerb build outs with one way priority working and speed cushions.

3.3.7. There are varying levels of pedestrian infrastructure along the road, although there is a footway provided on at least one side of the road for its entire length aside from the northernmost 300m section outside of the village.

3.3.8. Dropped kerb crossing infrastructure is provided across most side roads while there are well facilitated uncontrolled pedestrian crossings provided along Worthing Road itself. There are also a number of zebra crossings and signal-controlled crossings along Worthing Road on key desire lines including in the vicinity of the Broadacres development and on approach to Lintot Square.

WORTHING ROAD (NORTH OF A24)

3.3.9. The northern section of Worthing Road operates as the B2237 in a general north to south alignment between the Hop Oast roundabout at its southern end and Horsham town centre at its northern end.

3.3.10. Worthing Road is a two-way single lane carriageway with a typical carriageway width of 6m. The road is subject to a speed limit of 40mph, although the northern section, on approach to the centre of Horsham, is subject to a 30mph posted speed limit.

3.3.11. There are few direct frontage accesses along the southern end, although this increases as you enter Horsham. The northern section also provides access to a number of adjoining residential streets within the south of Horsham, including Blackbridge Lane and Tanbridge Park. Street lighting is present on the northern and southern parts of the road.

3.3.12. There is a footway provided along the entire length of Worthing Road. Much of the footway is narrow with usable width varying between 1-1.5m. Lit footways are provided on approach to the centre of Horsham. There is an uncontrolled pedestrian crossing with dropped kerbs, tactile paving central pedestrian refuge and lighting at the southern end of the road, providing a separate pedestrian access to the Park and Ride site.

TWO MILE ASH ROAD

3.3.13. Two Mile Ash Road is rural road that operates between Barns Green and Tower Hill, which in-turn provides access to Worthing Road by way of a simple priority junction.

3.3.14. The majority of the road is unlit with few frontage accesses, although this does increase towards the northern end. The southern part of the road is subject to a posted speed limit of 40mph while the north section of the road is subject to a posted speed limit of 30mph.

3.3.15. Much of the road is relatively narrow with carriageway widths between 4.8m and 5m. There is limited footway provision along Two Mile Ash Road with a narrow footway provided on only short sections of the road.

CHRIST'S HOSPITAL ROAD

3.3.16. This road connects Two Mile Ash Road at its eastern end and Weston's Hill at its western end providing access to Christ's Hospital and its associated facilities, including Christ's Hospital rail station (via Station Road). King Edward Road effectively forms part of the road for a circa 200m section immediately west of the centre of Christ's Hospital.

3.3.17. It operates as a single carriageway, two-way road with varying carriageway widths. Certain sections are subject to formalised one-way priority working with associated signage and kerb build-outs in-place.

3.3.18. There are varying levels of pedestrian provision along the road. Importantly a footway of circa 1.8m in width commences in the centre of Christ's Hospital on the northern side of the road and continues eastwards. It then continues along the southern side of the road up to the junction with Two Mile Ash Road at a varying width of typically between 1.2m and 1.5m. A well-facilitated dropped kerb pedestrian crossing with kerb build-out is provided between these northern and southern footway sections in the centre of Christ's Hospital.

STATION ROAD

3.3.19. Station Road provides access to Christ's Hospital rail station from the northern side of Christ's Hospital Road by way of a priority junction. It is unlit and is subject to a posted speed limit of 30mph and as well as providing access to the rail station, also provides access to residential properties with direct frontage access on the western side of the road and to further properties at the northern end of the road ('Station Cottages') as well as those accessed via King Edward Close.

3.3.20. There are no footways along Station Road, although the road is subject to low observed vehicular speeds (typically well below 30mph). It is noted that the road forms part of the Downs Link. It also provides access to PRoWs and a permissive footpath at its northern end, which offers a more direct, largely traffic-free route for pedestrians travelling between the rail station and the centre of Christ's Hospital.

SOUTHWATER STREET

3.3.21. Southwater Street is accessed by way of a priority junction from the eastern side of Worthing Road and continues as a predominantly residential road to Coltstaple Lane some 1km further east.

3.3.22. The westernmost section in the vicinity of Worthing Road is lit, however as you leave the village this becomes unlit. A footway is in-place along the northern side of the road from the Worthing Road junction for approximately 500m with the footway provision continuing on the southern side of road over the A24 and Blakes Farm Road until it stops at Kings Lane, the crossing provision of Southwater Street is just drop-kerbs.

CHESSALL AVENUE

3.3.23. Chessall Avenue is a residential road that effectively forms a loop road serving the northern parts of the Broadacres development and Great House Farm. It forms the western arm of the Cedar Drive / Worthing Road / Chessall Avenue roundabout and is also accessed by way of a priority junction on Worthing Road some 240m south of the Cedar Drive roundabout.

3.3.24. The road has a typical carriageway width of 5.5m and is provided with well lit, good quality, and wide footways.

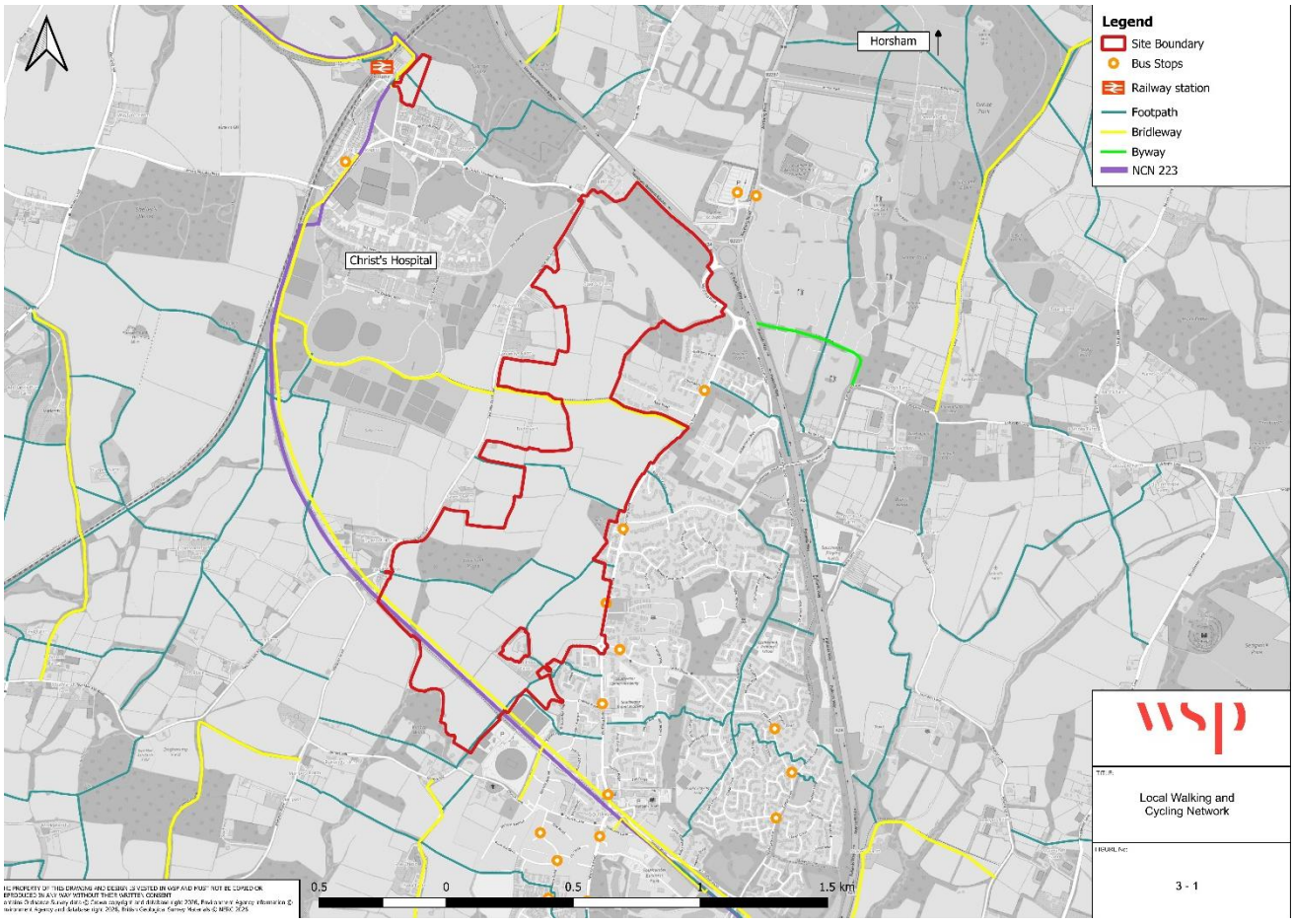
CEDAR DRIVE

3.3.25. Cedar Drive forms the eastern arm of the Cedar Drive / Worthing Road / Chessall Avenue roundabout and provides access to a large number of properties by way of direct frontage access. It is generally well lit and is provided with footways on both sides of the carriageway. There are raised table traffic calming features along the road.

3.4. WALKING AND CYCLING NETWORK

3.4.1. Whilst there are a number of walking and cycling facilities provided along the existing local road network, as described above, there are also a number of additional dedicated cycling and / or walking pathways available in the local area. Full details are shown in **Figure 3-1**, while a description of the most notable parts of this network are provided further below.

Figure 3-1 – Local Walking and Cycling Network



NATIONAL CYCLE NETWORK (NCN) ROUTE 223

3.4.2. NCN Route 223 (the 'Downs Link') is broadly located to the south and west of the Site and connects Chertsey in the north to Shoreham-by-Sea in the south via Guildford as a predominantly traffic-free route. Part of the route also operates through the southern part of the Site itself.

3.4.3. The route in Chertsey (to the north) provides connections to NCN Route 4 and to the south, the route connects to NCN Route 2 in Shoreham.

3.4.4. The route is predominantly unlit and unmetalled, although the route provides a pleasant, largely traffic-free route to key local destinations, including Lintot Square and Christ's Hospital rail station. The route is generally well-signed and is notably provided with a good quality Toucan crossing on Worthing Road where it meets the signalised junction of Worthing Road / Fairbank Road. Separate Puffin crossings and Pegasus crossings are also provided in this location, providing a good level of infrastructure provision for NMUs.

3.4.5. The sections of the route locally to the Site also incorporate PRoWs 1642 and 3568, which are classified as bridleways.

PUBLIC RIGHTS OF WAY (PROWS)

3.4.6. As well as the abovementioned PRoWs, there are a number of additional PRoWs that operate within, or close to, the Site, as shown at **Figure 3-1**. In particular PRoWs 3568 (bridleway), 1662 (bridleway), 1660 (footpath), 1656 (footpath), 1654 (footpath), 1655 (footpath) 1628_3 (footpath) and 1658 (footpath) all operate through the Site.

3.5. PUBLIC TRANSPORT CONNECTIVITY

BUS SERVICES

3.5.1. There is a good existing level of bus provision in Southwater and as shown in **Figure 3-1**. The closest bus stops to the centre of the Site are the 'Southwater Street' bus stops, which benefit from shelters, seating, full timetable information and real time bus information displays. These bus stops are situated approximately 350 metres from the centre of the Site (a circa 4-minute walk).

3.5.2. It is noteworthy that there are additional bus stops on Worthing Road that are closer to the northern and southern parts of the Site than the Southwater Street bus stops – including the 'Warnham Gate' and 'Southwater Junior School' bus stops respectively.

3.5.3. The main bus services in Southwater are provided through a combination of:

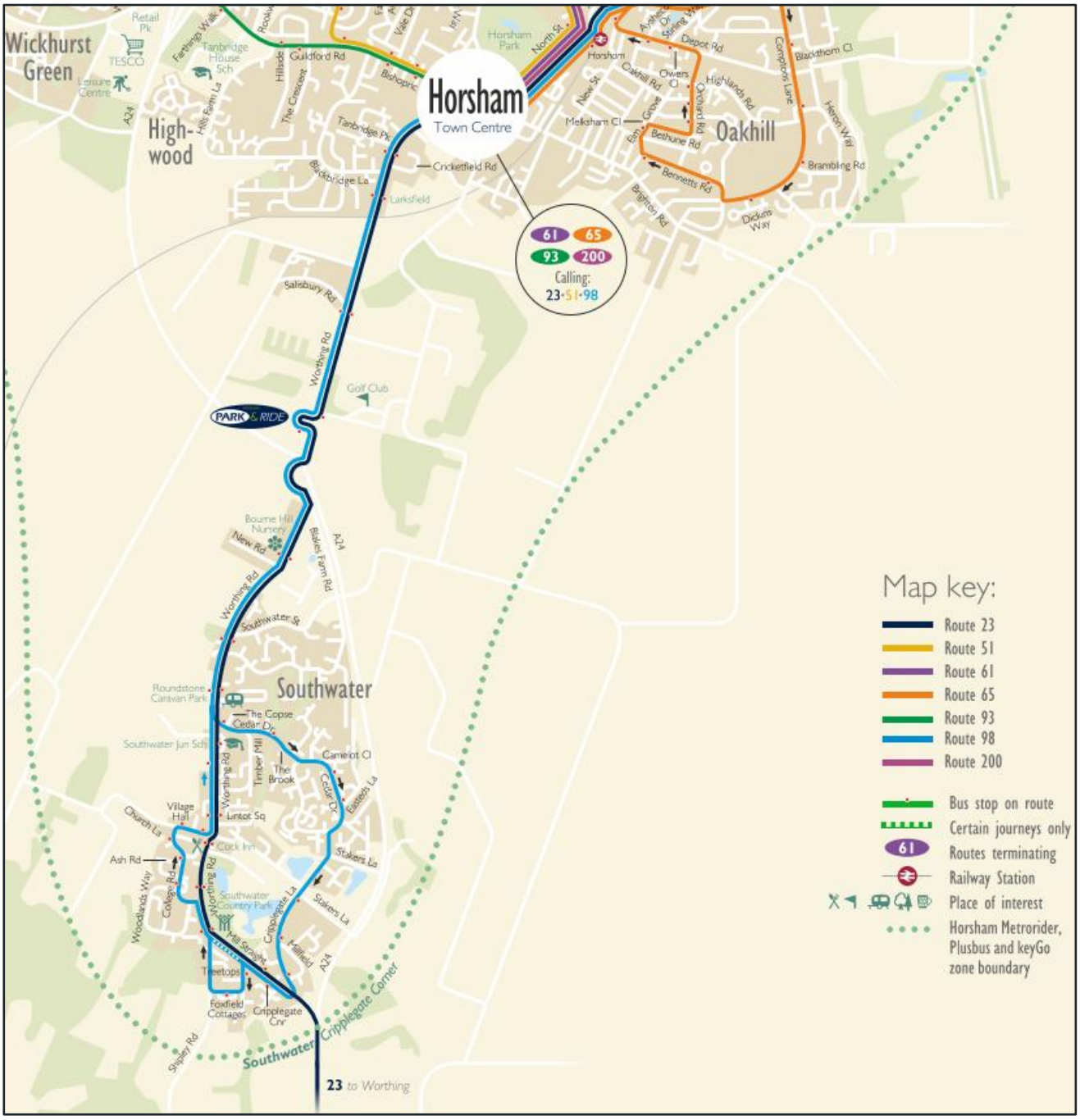
- A regular - typically every 20 minutes - local service (No. 98) between Southwater and Roffey, via Horsham town centre, operating along Worthing Road and in a looped arrangement through the existing residential areas of Southwater (via Cedar Drive and Cripplegate Lane).
- Less frequent - typically hourly - inter-urban service (No. 23) between Horsham and Worthing, operating along Worthing Road.

3.5.4. The main bus operator in Southwater is Metrobus, operating both the 23 and 98 service. **Figure 3-2** presents the Metrobus service plan that operate in the Horsham area.

Table 3-1 – Summary of Bus Services through Southwater

Bus Service No. / Direction	Operator	Destination	Typical Weekday Daytime Frequency	Typical Saturday Daytime Frequency (per hour)	Typical Sunday Daytime Frequency (per hour)	First and Last Weekday Bus to Destination
23 (Northbound)	Metrobus	Crawley	Hourly	Hourly	Every 2 Hours	07:44 | 23:30
23 (Southbound)	Metrobus	Worthing	Hourly	Hourly	Every 2 Hours	06:08 | 19:22
98 (Northbound)	Metrobus	Roffey	Every 20 Minutes	Every 20 Minutes	Every 30 Minutes	06:21 | 23:01
98 (Southbound)	Metrobus	Southwater	Every 20 Minutes	Every 20 Minutes	Every 30 Minutes	06:48 | 23:49

Figure 3-2 - Bus Journey Map



3.5.5. Utilising the 98 service, the typical journey time from the Southwater Street bus stop to Horsham town centre and vice versa is circa 10 - 12 minutes. The journey time from this bus stop to Horsham rail station is circa 20 – 25 minutes.

3.5.6. As shown at **Table 3-1**, weekday 98 services towards Horsham commence from the Southwater Street bus stop at 06:21 hours with the latest retuning weekday services depart Horsham rail station at 23:34.

3.5.7. It is clear that the existing bus services in Southwater facilitate convenient public transport travel to key destinations, such as Horsham town centre, for both commuting and leisure purposes - including for onward rail travel from Horsham rail station.

3.5.8. There are also number of additional bus services that operate within the Southwater and Christ's Hospital area at a lower frequency than the 23 and 98 services, as summarised below:

- **64 Service** - A Compass Travel service available from Christ's Hospital Road that operates between Loxwood and Horsham town centre. One service per day on Mondays and Thursdays.
- **74 Service** - A Compass Travel service available from Christ's Hospital Road that operates between Storrington and Horsham town centre. Three services per day in each direction on Tuesdays.
- **74A Service** - A Compass Travel service available from Christ's Hospital Road that operates between Storrington and Horsham town centre. One service per day in each direction on weekdays.
- **398 Service** – A Metrobus school service between Southwater and Crawley. School start / end times only.
- **525 Service** - A Sussex Coaches school service between Southwater and Billingshurst. School start / end times only.
- **621 / 622 / 626 Service** - A Sussex Coaches school service between Southwater and Horsham. School start / end times only.
- **668 Service** - A Sussex Coaches school service between Oakhill and Wickhurst Green. School start / end times only.

3.5.9. Details relating to the proposed strategy for maximising the accessibility of the Site by non-car modes, including by bus are provided in Chapter 7 of this TA.

RAIL SERVICES

3.5.10. The closest railway station to the Site is Christ's Hospital, approximately 1.8km northwest of the centre of the Site. This is within the generally recognised 'preferred maximum' 2km walking distance for commuting and education purposes, as set out previously.

3.5.11. Rail services from Christ's Hospital station are operated by Southern with the weekday services summarised below at **Table 3-2**.

Table 3-2 - Rail Services from Christ's Hospital Rail Station

To	Duration to destination (minutes)	Typical Weekday Frequency (per hour)	Main Interim stops	First and last Service (weekday) To Destination
Bognor Regis	48	2	Billingshurst, Pulborough, Amberley, Arundel, Ford, Barnham, Bognor Regis	07:39 | 23:34
London Victoria	66	2	Horsham, Crawley, Three Bridges, Gatwick Airport, East Croydon, Clapham Junction, London Victoria	06:15 | 22:07
Gatwick Airport	31	2	Horsham, Crawley, Three Bridges, Gatwick Airport	06:15 | 22:07

3.5.12. Christ's Hospital rail station incorporates approximately 20 covered cycle parking spaces with CCTV surveillance, along with a secure Amazon parcel collection / delivery point. Step-free access is available for southbound services (coastbound) with no step-free access for northbound services (towards London). There is a pay and display car park at the station, providing 53 spaces. An additional pay and display car park is located immediately south of the station car park, providing an additional 39 spaces. Details relating to a car parking demand survey of these car parks, as well as on-street parking demands on Station Road, are provided at Chapter 5.

3.5.13. Horsham rail station is situated approximately 4.5km northeast of the Site and is managed by Southern. Whilst users are unlikely to walk to / from this station from the Site, the station is well within the generally recognised maximum acceptable cycling distance (8km). It is also accessible via the existing Metrobus bus services that operate through Southwater as set out previously.

3.5.14. Horsham rail station provides access to more frequent rail services and to a wider range of destinations than Christ's Hospital. The journey times to key destinations (such as Central London) are also shorter from Horsham rail station than from Christ's Hospital rail station. It is therefore considered more likely that this station would be used by residents and employees of Proposed Development, as opposed to Christ's Hospital rail station.

3.5.15. A summary of the services available from this station is provided below.

Table 3-3 – Summary of Rail Services from Horsham

To	Duration to destination (minutes)	Typical Weekday Frequency (per hour)	Main Interim stops	First and last Service (weekday) To Destination
Bognor Regis	46	2	Christ's Hospital, Billingshurst, Pulborough, Amberley, Arundel, Ford, Barnham, Bognor Regis	07:35 | 22:58
London Victoria via Gatwick Airport	58	2	Crawley, Three Bridges, Gatwick Airport, East Croydon, Clapham Junction, London Victoria	05:47 | 22:20
London Victoria via Epsom & Sutton	79	1	Warnham, Ockley, Holmwood, Dorking, Box Hill & Westhumble, Leatherhead, Ashtead, Epsom, Cheam, Sutton, Carshalton, Clapham Junction, London Victoria	05:44 | 21:14
Peterborough	160	2	Littlehaven, Crawley, Three Bridges, Gatwick Airport, Horley, Redhill, East Croydon, London Bridge, London Blackfriars, City Thameslink, Farringdon, London St Pancras, Finsbury Park, Stevenage, St Neots, Peterborough	05:25 | 23:11
Portsmouth	61	2	Barnham, Chichester, Havant, Fratton, Portsmouth & Southsea	06:18 | 22:01

3.5.16. Horsham rail station incorporates 253 covered cycle parking spaces with CCTV surveillance. Step-free access is available at all platforms. There is a pay and display car park at the station, providing 180 spaces. The station provides a range of amenities and welfare facilities for passengers.

3.5.17. The existing rail services in the region offer convenient connections to key destinations, such as Central London. Horsham rail station features a broader range of services and typically faster journeys to major stops compared to Christ's Hospital rail station. Additionally, Horsham station is more readily accessible via current bus routes from Southwater. On the other hand, Christ's Hospital rail station is easier to reach from the Site using active travel options.

3.5.18. Further analysis of local rail accessibility, particularly in relation to the proposed Walking and Cycling Strategy and Public Transport Strategy, will be provided later in this TA in Sections 6 and 7.

3.6. EXISTING TRAVEL MODE USAGE

3.6.1. To understand the relative attractiveness of non-car modes of travel amongst existing residents of Southwater, a review of Census data (2011) in respect to 'Method of Travel to Work' has been undertaken. The area selected for this study relates to the Super Output Area (Middle Layer) 'E02006596 : Horsham 009' – which comprises the main residential area of Southwater. This exhibits overall comparable accessibility credentials to the subject Site, albeit it is noted that the subject Site is closer to Christ's Hospital rail station than the existing residential areas of Southwater. The 2011 census has been utilised instead of the 2021 census data due to the potential that the Covid pandemic could impact the travel to work mode share (although it is clear that this has increased since 2020).

3.6.2. The data, based on a total sample size of 4,863 existing working residents, is presented below at **Table 3-4** while the full outputs – including a map of the study area – is included at **Annex B**.

Table 3-4 – Travel to Work Transport Mode for Horsham 009

Mode	Census Output Area E02006596 : Horsham 009	
	No. Existing Residents (Total Sample Size – 4,863 Persons)	Travel to Work Modal Share (%)
Rail	253	**5.2%**
Bus, minibus or coach	156	**3.2%**
Taxi	2	**0.0%**
Motorcycle, scooter or moped	41	**0.8%**
Driving a car or van	3,591	**73.8%**
Passenger in a car or van	245	**5.0%**
Bicycle	51	**1.0%**
On foot	229	**4.7%**
Work at or mainly from home	277	**5.7%**
Other method of travel to work	18	**0.4%**

3.6.3. On the basis of the above, whilst the majority (73.8%) of working residents in this area drive a car / van to and from work, a significant proportion travel by alternative modes. In particular, this includes 5.7% by active modes (foot and cycle) and 8.4% by public transport, thereby indicating potential to further encourage the use of these modes amongst prospective future users of the Site, this is detailed in further detail in the Travel Plan.

3.6.4. It is also particularly noteworthy that the above data indicates that 5.7% of residents of this area usually work from home. Given that the above data relates to 2011 (i.e. pre-Covid) it is anticipated that the proportion of full-time / part-time home working as part of the Proposed Development would be greater than is suggested above, further reducing the impact on the surrounding transport network and assisting in achieving the aims and aspirations of future travel plans.

3.7. PERSONAL INJURY ACCIDENT DATA

3.7.1. This section presents an analysis of personal injury accidents in the Southwater - Horsham region of Sussex police jurisdiction covering the period from 1 December 2020 to 30 November 2025 and is provided in full within **Annex C**.

3.7.2. The study area comprises the traffic impact assessment area utilised later in this TA and broadly covers the sections of the A24 and A264 between the A264 / Rusper Road junction to the north and the A272 / A24 junction to the south. The study area also includes Southwater, Christ's Hospital and Tower Hill as well as the Worthing Road corridor into Horsham and the section of Southwater Street and Coltstaple Lane up to the Kerves Lane junction.

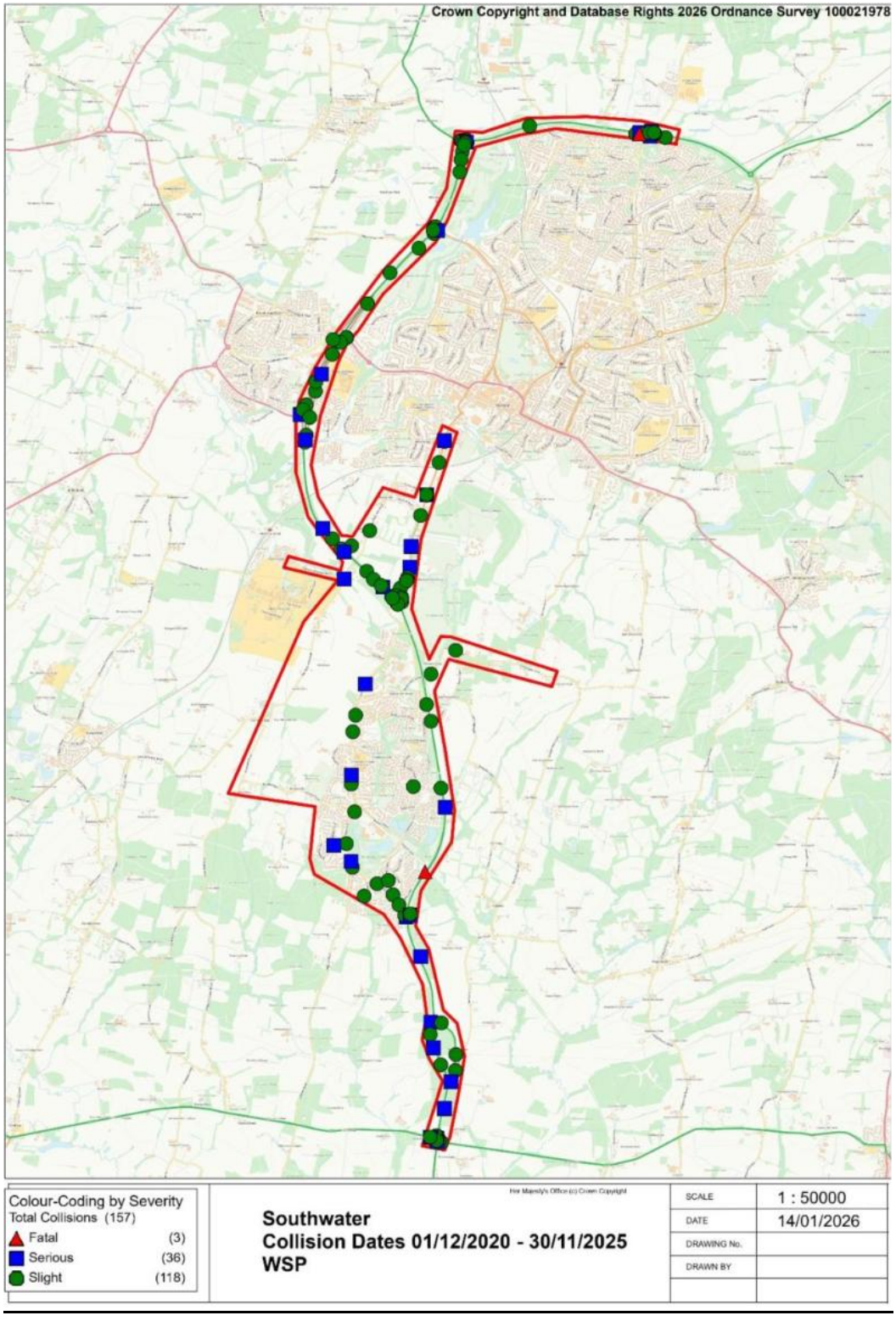
3.7.3. The dataset includes 157 collisions were recorded across the study area within 5-year period of assessment, of which 3 were fatal, 36 classified as serious, and 118 were classified as slight. A summary of the number of accidents by severity and location is provided in the following table.

Table 3-5 - Summary of Locations of PIA's and the Severity

Location	PIA Severity			Total
	Slight	Serious	Fatal	
A264	15	6	1	22
A24 North of Hop Oast Roundabout	34	7	1	42
A24 South of Hop Oast Roundabout	13	13	1	27
Worthing Road North of Hop Oast Roundabout	9	4	0	13
Worthing Road South of Hop Oast Roundabout	4	3	0	7
Other	40	3	0	43
Total	115	36	3	154

3.7.4. **Figure 3-3** below shows the PIA Study Area Plan.

Figure 3-3 - PIA Study Area Plan



FATALITIES

3.7.5. Details relating to the three fatal accidents are provided at **Table 3-6** and discussed further below.

Table 3-6 - Summary of Fatal Accidents within Study Area

Ref.	Location	Date	Time	Road Users	Casualties	Listed Causation Factors
201004473	A24: 500m North of A24/Mill Straight Jct.	06/12/2020	13:25	2 X Car	FS Passenger (Fatal) Driver (Serious)	-Loss of Control
211018158	Worthing Road: 550m North of Hop Oast: Jct.	30/01/2021	12:30	1 X Car	Driver (Fatal)	-Exceeding Speed Limit
231358115	A24: 100m west from junction within Rusper Rd	30/09/2023	19:19	2 X Car	Driver (Fatal)	Driver Error

3.7.6. PIA reference 201004473 occurred on the A24 some 500m north of the Pollards Hill junction and saw a car leaving the carriageway and collide with a tree, causing fatal injuries to the driver. Whilst limited causation factors are listed (aside from loss of control) the accompanying PIA description notes that the driver may have been racing another vehicle at the time of the PIA.

3.7.7. PIA reference 211018158 occurred on Worthing Road some 550m north of the Hop Oast roundabout and was a single vehicle PIA that saw a car travelling southbound on Worthing Road spinning and colliding with a tree, causing fatal injuries to the driver. The listed causation factors are exceeding the speed limit and slippery road.

3.7.8. PIA reference 231358115 occurred on A24, 111 meters west from the junction with Rusper Road, and involved collisions between two cars, one of which interacts with second car just off Rusper road causing first vehicle to flip several times ejecting male from vehicle causing fatal injuries, serious injuries to female occupant. The listed causation relates to driver error.

3.7.9. In summary, none of the fatalities involved pedestrians or cyclists while one of the three PIAs was a single vehicle accident. None of the PIAs had causation factors that related to the layout or geometric properties of the highway, with the overriding causation factors relating to driver error. None of the fatalities occurred in the same locality / section of road. The fatal accidents on their own do not indicate any underlying road safety issues within the study area.

VULNERABLE USER INVOLVEMENT

3.7.10. A review of the accidents involving vulnerable road users (cyclists and pedestrians) has been undertaken. There was a total of 16 no. PIAs where a cyclist suffered injury (comprising 5 serious accidents and 7 slight accidents). 4no. PIAs where a pedestrian suffered injury (comprising 1 serious and 3 slight accidents). There were no fatalities.

3.7.11. In terms of these accidents, the overriding causation factors relate to driver / rider / pedestrian error, such as failure to look properly or carelessness /recklessness. None of the accidents have the layout or condition of the highway network as a listed causation factor and none of them occurred at the same location.

ACCIDENTS AT A24 / WORTHING ROAD JUNCTION (HOP OAST ROUNDABOUT)

3.7.12. A total of 16 accidents occurred at the Hop Oast roundabout, all of which were classified as slight in severity. These accidents generally comprised rear-end / side-on collisions amongst vehicles negotiating, or waiting to negotiate, the roundabout. The overriding listed causation factors relate to driver error, such as carelessness or failure to judge another road user's path or speed. The junction will be subject to improvement as part of the Proposed Development, including the provision of traffic signal controls.

ACCIDENTS AT A24 / MILL STRAIGHT JUNCTION (POLLARDS HILL ROUNDABOUT)

3.7.13. A total of 3 accidents, both slight in severity, occurred at this junction. The first of these (reference 231292627) was a rear-end shunt between two cars travelling southbound on the A24 with the associated causation factor being failure to judge another road user's path or speed. The second of these accidents (reference 231337612) was a collision between two cars in the same direction. The listed causation factors relate to driver error. The third collision (reference 251582627) referring collision between car and motorcycle, related to rider error. It is noted that the southbound movement attracts more accidents compared to other movements, it is not deemed significant however should be noted by WSCC when considering the wider A24 Corridor Study.

ACCIDENTS ON WORTHING ROAD (SOUTH OF HOP OAST) AND MILL STRAIGHT

3.7.14. A total of 7 PIAs – 3 serious in severity and four slights in severity – occurred on the Worthing Road / Mill Straight corridor within Southwater. A review of the PIAs that were classified as serious is provided below.

3.7.15. The first of the serious collisions (reference 211076437) saw a car mount the pavement on Worthing Road, some 90m from its junction with Netherton Close, and collide with a pedestrian. No causation factors (aside from 'other') are provided with the accompanying description stating that the driver left the scene of the PIA.

3.7.16. The second of the serious collision (reference 221240853) was a between a car driving north along Worthing Rd and turning right and a northbound motorcycle on Worthing Rd. The sole causation factor relates to rider error.

3.7.17. The third collision is classified as a very serious (reference 251659928) and referred as a single vehicle (motorcycle) accident at the Worthing Rd and saw a motorcyclist travelling northwest on Mill Straight/Worthing Rd and lost control due to leaves on the carriageway and has exited the carriageway to the nearside. The road conditions were wet / damp. The single listed causation factor is 'loss of control'.

3.7.18. In terms of slight collisions, there were a number of different causations including a conflict between a car and bus where the car was U-turning and collided with the bus, however a number involved motorcyclists along this corridor (although all maintaining different characteristics). Whilst there is no specific trend, the potential for cyclist accidents is apparent and will be considered within any proposed improvements along this section of road.

SUMMARY

3.7.19. In summary, it is considered that the number, type and severity of PIAs is not in excess of the level that may be expected on a comparable section of the highway network over a 5-year period.

3.7.20. The vast majority of accidents had associated causation factors relating to driver / rider error, as opposed to underlying faults with the condition or geometric properties of the highway network. It is therefore considered that the local road network is not subject to any underlying road safety issues that may be exacerbated by the Proposed Development.

3.8. EXISTING TRAFFIC CONDITIONS

3.8.1. Over the previous six years, traffic surveys have been undertaken across the highway network in the vicinity of the Site, the most recent surveys took place in September 2025. The traffic data has been used to support the creation and validation of the SATURN model which has been provided to WSP by WSCC. Notwithstanding this, the SATURN model is based upon a 2019 base year, utilising 2019 surveys and therefore additional traffic surveys were commissioned in May 2022 and September 2025 to provide additional validation. The traffic survey data from September 2025 is contained within **Annex D**.

3.8.2. HDC's strategic SATURN model has been used to establish the impact of the Proposed Development in terms of changes in traffic on the highway network. This process is described in more detail within Chapter 9 of this TA, including a review of the changes in traffic that are projected to occur on key local roads as a consequence of the Proposed Development.

3.8.3. Throughout the previous allocation review, the level of traffic flow along Worthing Road (South of Hop Oast Roundabout) in proximity to the Site was a key consideration in determining the access arrangement. To understand current traffic levels, flows have been taken from the recent September 2025 surveys. The traffic flows are presented in **Table 3-7** below.

Table 3-7 – 2025 Traffic Flow Worthing Road (South of Hop Roundabout)

	Northbound	Southbound	Two-way
AM Peak (08:00-09:00)	739	389	1,128
PM Peak (17:00-18:00)	458	672	1,130
Daily (07:00-19:00)	5,336	4,898	10,234

3.8.4. The traffic flows indicate that Worthing Road is tidal with traffic routing towards the A24 in the morning and returning to the village in the evening peak hour. Whilst now withdrawn, the Design Manual for Road and Bridges (DMRB) TA 79/99 would have considered that Worthing Road is currently operating well within its theoretical capacity.

3.9. HORSHAM GOLF COURSE APPLICATION

3.9.1. Since the 2022 Planning Application, the Horsham Golf Course proposals were approved at appeal in July 2025 (APP/Z3825/W/24/3355546). The Horsham Golf Course development is located to the northeast of the Hop Oast Roundabout and will be accessed via a proposed fourth arm of the Horsham Park & Ride signalised junction. The development quantum for the Horsham Golf Course application is as follows:

- A sports and leisure hub:
- Local Centre;
- Reconfigured golf course and associated infrastructure;
- Up to 800 homes; and
- Supporting infrastructure, including internal streets and open space.

3.9.2. **Table 3-8** below details the minimum floorspace for each of the non-residential land uses.

Table 3-8 – Land Use – Minimum Floorspace Proposed

Use	Floorspace
Local Centre Community Hall (Use Class F2(b))	160sqm
Nursery/ Creche (Use Class (E(f))	265sqm
Hockey Facilities (Use Class E(d))	275sqm
Golf College (Use class F1(a))	230sqm
Driving range (use class E(d))	1,760sqm
Warren Clarke Golfing Dreams Education Centre (use class F1a)	315sqm
Child playspace provision	907sqm

3.9.3. The development will provide a series of active travel, sustainable travel and highway improvements, importantly improving links towards Southwater, enabling residents of both sites to access each other using sustainable modes of transport.

3.9.4. Their public transport strategy includes enhancing the frequency of the existing 98 bus service to a minimum of a 15-minute service during the day alongside reducing the overall journey time between their development and Horsham.

3.9.5. Active travel improvements being delivered include contributions towards the upgrading of Lovers Lane and Pedlars Way public bridleways to provide a minimum of a 3m wide cycleway (in accordance with the standards set out in LTN 1/20). Further cycle improvements are to be delivered on Coltstaple Lane covering additional signage and white lining (cycle symbols) with the aim to reinforce the presence of cyclists.

3.9.6. The Golf Course application will also provide a new footway connecting the Park & Ride with the Site and down to the Hop Oast roundabout to tie into future improvements at the roundabout as set out within this TA. This will significantly improve connections between Southwater, Horsham Park & Ride and the Golf Course site.

3.9.7. The development will also provide highway improvements at the existing P&R junction with the Site access to provide additional capacity.

3.9.8. Focusing on the Proposed Development, the improvements to Lovers Lane and Pedlars Way will support the Site's aspirations for improved cycle connections into Horsham and will see the enhancement of the existing 98 bus service to a 15-minute service, a proposal which will encourage sustainable transport opportunities from the Site towards Horsham and on to wider public transport services.

3.10. SUMMARY

3.10.1. This section outlines the existing conditions in around the Site in terms of the local highway network and public transport network. The existing footways provide access to the key existing facilities within Southwater.

3.10.2. The nearest bus stop is located on Worthing Road and the two services 23 and 98 provide access to Horsham, Crawley and Worthing. The closest station is Christ's Hospital station which is 1.8km away which provides half hourly services to London, whilst Horsham station is accessible via the two bus services.

3.10.3. The Horsham Golf Course application supports the proposed Development by enhancing existing bus services and providing a new footway/ cycleway on the northern side of Hop Oast Roundabout.

4. ACCESSIBILITY TO LOCAL FACILITIES AND PUBLIC TRANSPORT SERVICES

4.1. INTRODUCTION

4.1.1. This Chapter outlines the accessibility to the local facilities and an active travel assessment from the proposed development.

4.2. WALKING AND CYCLING ACCESSIBILITY

4.2.1. Walking and cycling are the most sustainable modes of transport and, as well as contributing to a stronger sense of community, can form part of a healthier lifestyle.

WALKING

4.2.2. Manual for Streets (MfS) states that walking offers the greatest potential to replace short cart trips, particularly those under 2km, this is taken from Planning Policy Guidance 13, 2001. MfS highlights that walkable neighbourhoods are typically characterised by having a range of facilities within a 10-minute (up to 800m) walking distance of residential areas, which residents may access comfortably on foot, as well as other guidelines, including:

- Active Travel England Standing Advice Note: Active travel and sustainable development (June 2024);
- National Design Guide (MCLG, 2021); and
- Planning for Walking (CIHT, 2015).

4.2.3. Furthermore, guidance Providing for Journeys on Foot (CIHT, 2000) suggests that preferrable maximum walking distance of 2000m (depending on the purpose) is a suggested acceptable walking distance as shown in **Table 4-1**.

Table 4-1 - CHIT "Providing for Journeys on Foot" Recommended Walking Distances

	Town Centres	Commuting / School	Elsewhere
Desirable	200m	500m	400m
Accepted	400m	1km	800m
Preferred Maximum	800m	2km	1.2km

4.2.13. Additionally, The National Model Design Code – Part 2 (DLUHC, 2021) states:

"Generally, people are prepared to walk further to a railway station or tram stop (10 minutes) [800m walking distance] than to a bus stop (5 minutes) [400m walking distance]."

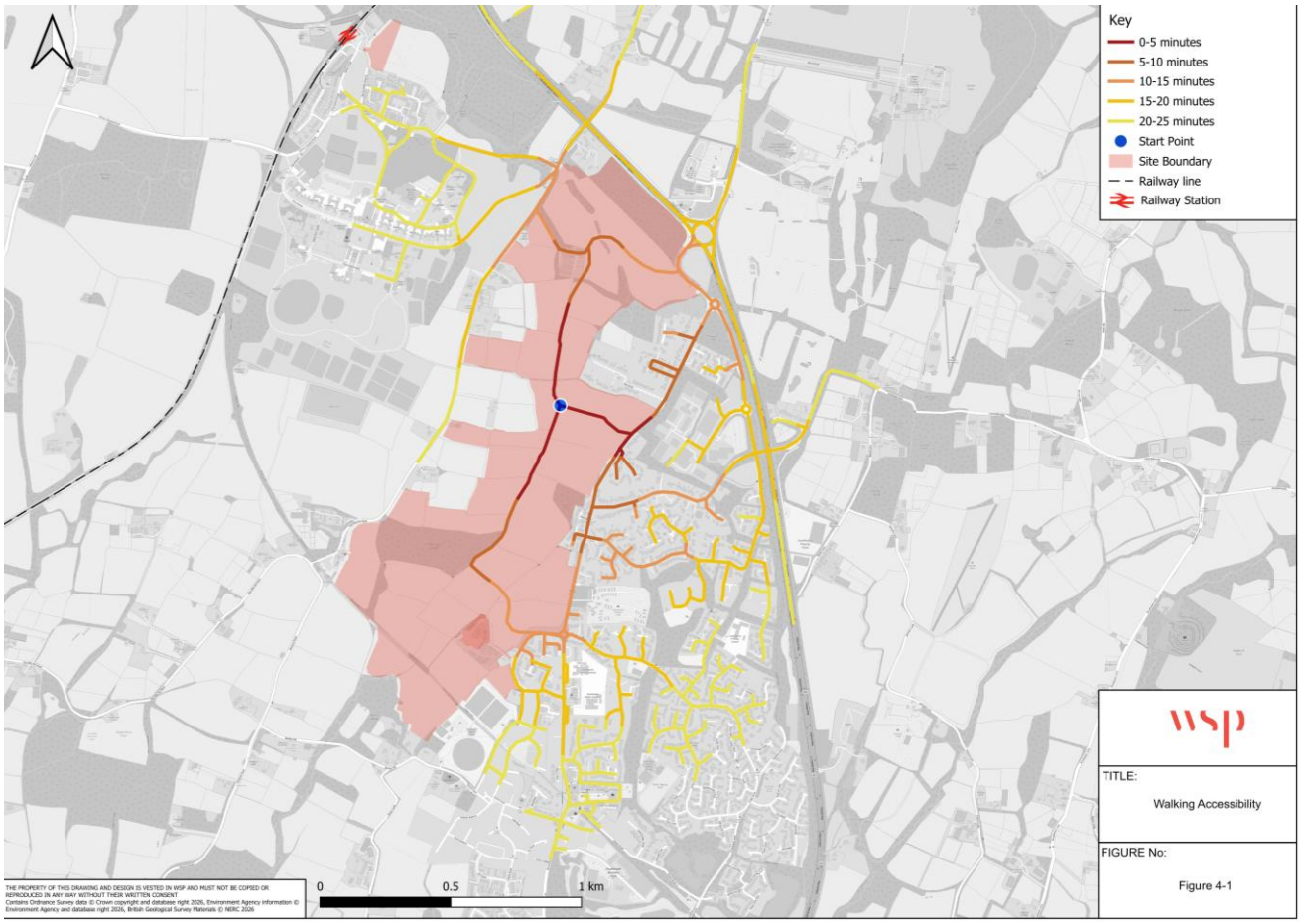
4.2.14. These times and distances are also cited in the CIHT document 'Planning for Walking' (2015). Further CIHT guidance – from 'Buses in Urban Developments' (2018) – indicates that a bus stop should be located within the following walking distances from a new development based on its location and the number and frequency of services and are shown in **Table 4-2** below.

Table 4-2 - CIHT Walking Distances to Bus Stops

CIHT Category	Maximum Walking Distance (m)
Core bus corridors with two or more high-frequency services	500
Single high-frequency routes (every 12 mins)	400
Less frequent routes	300
Town / City centres	250

4.2.15. The 2km/25-minute minute walking threshold is illustrated in **Figure 4-1** below, with the threshold based on a typical walking speed of approximately 5 km/h, showing pedestrian accessibility to the approximate centre of the Site in proximity to the two new schools and employment area.

Figure 4-1 - Walking Accessibility



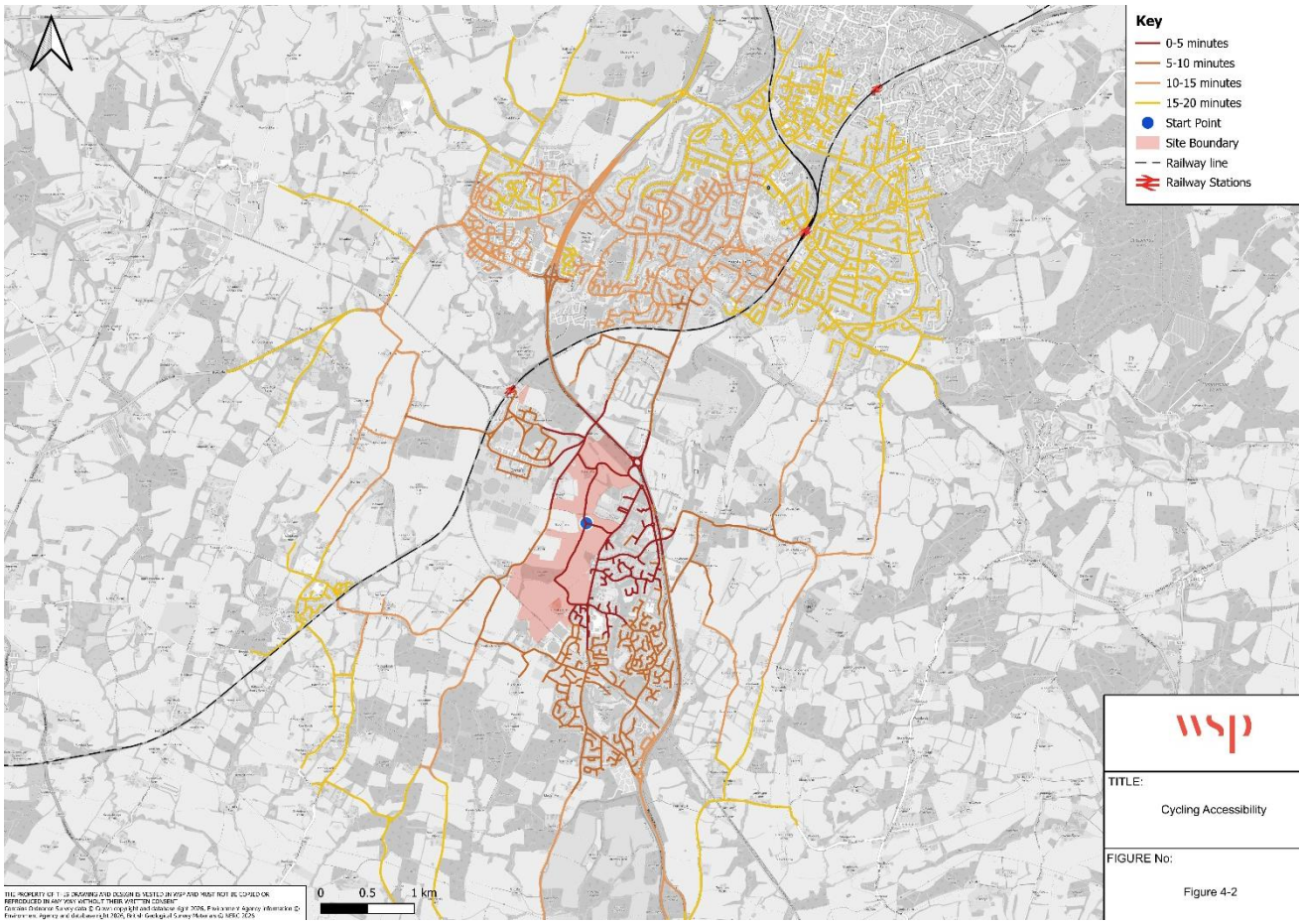
4.2.16. The walking accessibility plot presented above, details the locations accessible within a 25-minute walk of the centre of the Site. It shows the current primary and junior school in Southwater are accessible within a 15-minute walking. The local centre at Lintot square is a 20-minute walk from the centre of the Proposed Development. Whilst the bus stops on Worthing Road are within a 5-minute walk distance and Christ's Hospital station is just over 25-minute walk from the centre of the Site.

CYCLING

4.2.17. The National Travel Survey (2024) data, the latest data available at the time of writing this TA, suggests that the average cycle trip is approximately 3.5 miles (5.6km) or around 20 minutes long. However, it is acknowledged that the distance a person cycles depends on several factors, such as fitness level, confidence and ability. As such, it is deemed appropriate to utilise 5.6km as a lower value that represents an average cyclist, albeit it should be acknowledged that people undertaking specific trip journeys, such as commuting, will be prepared to cycle longer distances.

4.2.18. **Figure 4-2** shows the 5.6km cycling threshold based on the findings of the National Travel Survey (2024), assuming a typical cycling speed of 15km/h from the centre of the Site, in close proximity to both the new schools and employment area.

Figure 4-2 - Cycling Accessibility



4.2.19. The cycle accessibility figure presents that from the centre of the Proposed Development all of Southwater can be reached within a 10-minute journey, this includes Christ's Hospital Station. Further afield, the centre of Horsham can be reached within a 15-20 minute cycle journey, this includes Horsham Station, Horsham Bus Station and the shopping/ leisure facilities.

4.3. ACCESSIBLE FACILITIES AND SERVICES

4.3.1. **Figure 4-3** below shows the relationship between the Site and the nearby existing facilities.

Figure 4-3 - Local Facilities

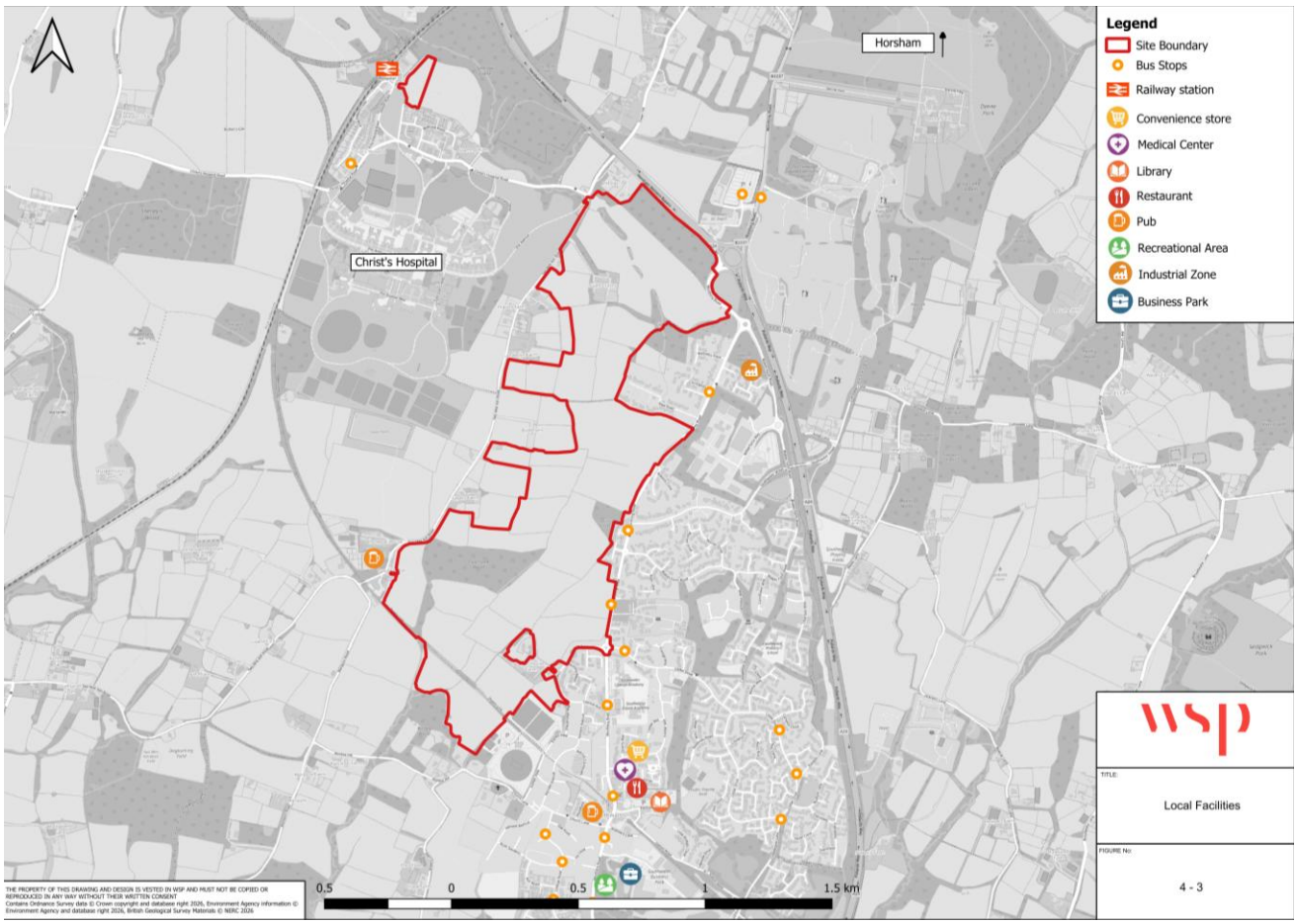


Table 4-3 below presents the various facilities within circa 2km of the Site, a distance that can be covered in approximately a 25-minute walk or a 8-minute cycle.

Table 4-3 - Accessibility to Local Facilities

Facility	Location	Facility Type	Distance (m)	Walking / Cycling times (minutes)
Co-op Food	Worthing Rd/Fairbank Rd	Convenience Store	650	8 / 3
Lintot	Worthing Rd/Fairbank Rd	Pub	650	8 / 3
The Haldi	Worthing Rd/Fairbank Rd	Restaurant	650	8 / 3
Tea Room - The Little Tea House	Worthing Rd/Fairbank Rd	Tea Store	650	8 / 3
Southwater Library	Worthing Rd/Fairbank Rd	Library	650	8 / 3
The Village Surgery	Worthing Rd/Fairbank Rd	Medical Centre	700	8 / 3
The Tipsy Fox	Worthing Rd/Church Ln	Pub	800	10 / 3
Christ's Hospital	Christ's Hospital Road	School	800	10 / 3
Bowers & Wilkins	Southwater Business Pk	Research and product development	1,000	12 / 4
Park and Garden	Southwater Business Pk	Recreational Area	1,300	16 / 5
Dinosaur Island Playground	Southwater Business Pk	Recreational Area	1,300	16 / 5
Southwater Country Park Lake	Southwater Business Pk	Recreational Area	1,300	16 / 5
Christ's Hospital	Christ's Hospital Road/Station Road	Railway Station	1,300	16 / 5
Neville & More Ltd	Wilberforce Way	Industrial	1,500	18 / 6
Macfarlane Packaging Horsham	Wilberforce Way	Industrial	1,500	18 / 6
Sussex Solar Ltd	Wilberforce Way	Industrial	1,500	18 / 6
Perfect Group (Nationwide) Limited	Wilberforce Way	Industrial	1,500	18 / 6

Facility	Location	Facility Type	Distance (m)	Walking / Cycling times (minutes)
Bax Castle	Two Mile Ash Rd	Pub	1600	19 / 6

4.3.2. It is evident from the above that the Site is situated within a reasonable walking and / or cycling distance of key destinations and facilities locally, including various day to day services and amenities in Southwater.

4.3.3. Various additional facilities are also available in the centre of Horsham and in Broadbridge Heath, both of which are approximately 5 kilometres away - a distance that is well within the generally recognised maximum acceptable cycling distance.

4.3.4. Opportunities to reasonably maximise the accessibility of these facilities from the Site will be incorporated as part of the Proposed Development as detailed in the Walking and Cycling Strategy in Chapter 6 and Public Transport Strategy in Chapter 7 of this TA.

4.3.5. It should be noted that the above list does not account for the various facilities that would also be provided on the Site as part of the Proposed Development. These facilities would also be accessible for existing and future users based off-site, thereby resulting in a potential reduction in trips to Horsham and beyond – e.g. for attending secondary schools.

4.3.6. The on-site facilities will be arranged with consideration to the principle of a '20-minute neighbourhood' – i.e. offering facilities that are generally within a 10-minute walk (i.e. a 20-minute two-way journey). In such a neighbourhood, the total 20-minute two-way walking trip could also be cycled in around 8 minutes.

4.4. ACTIVE TRAVEL ASSESSMENT

4.4.1. An evaluation has been conducted on key routes to the existing facilities detailed in Subsection 4.3 in line with the Active Travel England (ATE) Toolkit Assessment.

ACTIVE TRAVEL ENGLAND PLANNING APPLICATION TOOLKIT ASSESSMENT

4.4.2. Active Travel England (ATE) is the government's executive agency responsible for making walking, wheeling and cycling the preferred choice for everyone to get around in England with an objective to achieve 50% of trips in England's towns and cities to be walked, wheeled or cycled by 2030.

4.4.3. Introduced in May 2023, the ATE Planning Assessment Toolkit (referred to as 'the toolkit') gathers evidence and assesses the active travel merits of a development proposal. Information to complete the Assessment Toolkit has been sourced from a series of sources including the Transport Assessment, a site visit and a Walking Route Audit Tool (WRAT). A full copy of the WRAT have been provided in **Annex E** respectively.

4.4.4. ATE published the first version of the toolkit on 1st June 2023 alongside its commencement as a new statutory consultee. This comprised 31 criteria with text explaining how each could be assessed as a 'pass' or a 'fail'. Upon review of this and in response to feedback, ATE has simplified the toolkit such that there are now only 10 assessment criteria, while the new rating system better reflects the range of outcomes that are possible from each assessment.

4.4.5. A Score of 70% (i.e. a score of 28 out of a potential 40 points) should normally be regarded as a minimum level of provision overall. Routes which score less than this, and factors which are scored as zero should be used to identify where improvements are required.

4.4.6. To support the development of the toolkit, a qualitative analysis of local pedestrian, cycling and public transport infrastructure on routes from the proposed development to local facilities has been presented in **Figure 4-4** with the street names and route number set out in **Table 4-4** alongside the total score.

Figure 4-4 - Walking Routes from the Site

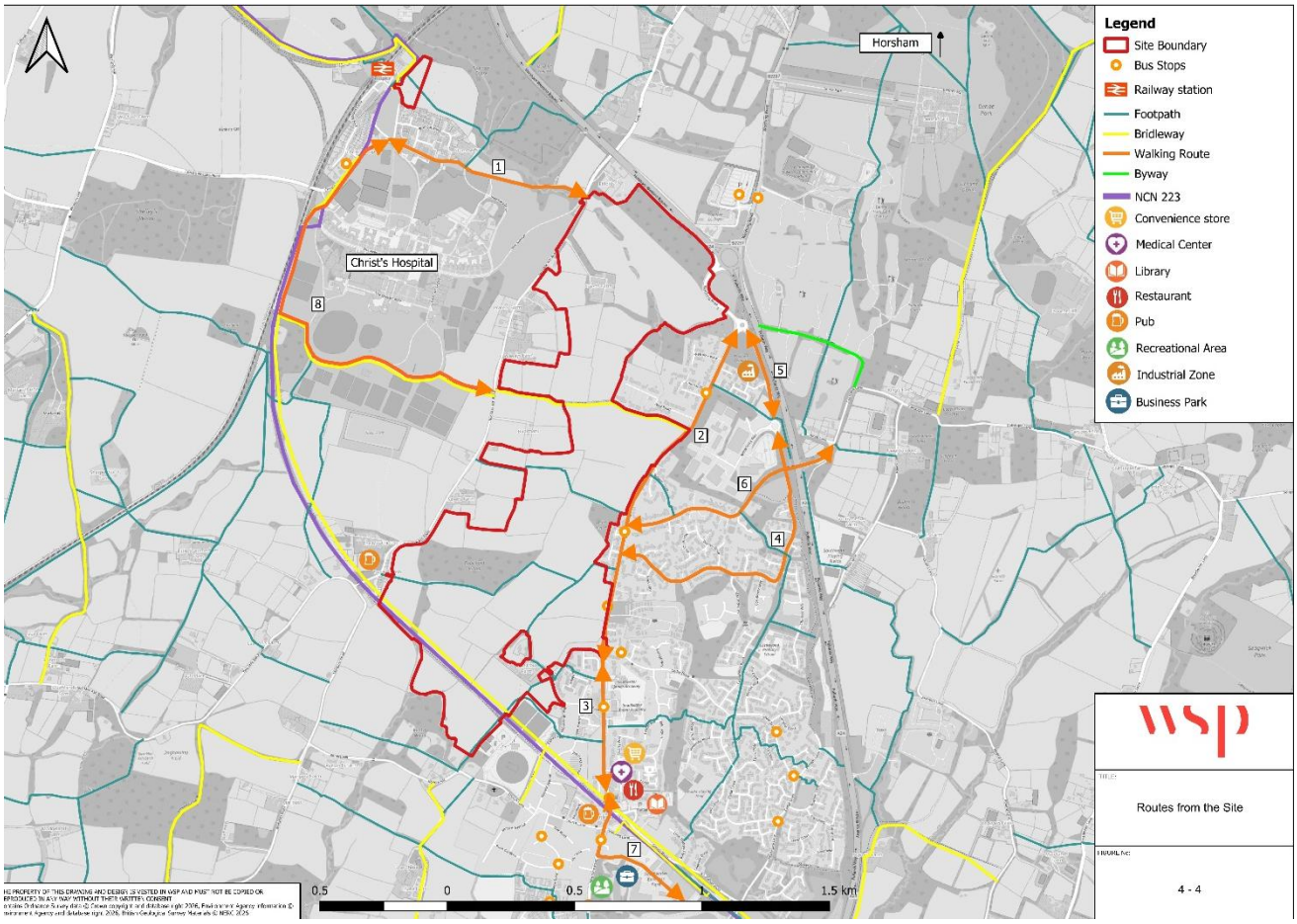


Table 4-4 - Route Number and Name

Route No.	Name	Key Destinations	Length (m)	Total Score
1	Christ's Hospital Road	Christ's Hospital Station	950m	24
2	Worthing Road - 1	Pub and Bus Stops	1450m	31
3	Worthing Road - 2	Southwater Infant and Junior Academy and Southwater Local Centre	480m	34
4	Blakes Farm Road - 1	Residential areas and Oakhurst Business Park	1300m	32
5	Blakes Farm Road - 2	Oakhurst Business Park	320m	28
6	Southwater Street	Lovers Lane – Cycle Route to Horsham	980m	31
7	Southwater Business Park/Worthing Rd	Southwater Business Park, Bus Stops and Local Centre	800m	29
8	Christ's Hospital Road - Route 2	Christ's Hospital Station	2000m	29

ACTIVE TRAVEL INFRASTRUCTURE AUDIT

4.4.7. An active travel infrastructure audit has been conducted on the key routes identified in **Table 4-4** above in line with toolkit criterion 2, in which the ATE Standing Advice Note states that *"a qualitative analysis of local pedestrian, cycling and public transport infrastructure should be presented"*. The infrastructure audit has been presented collectively for the categories of Walking, Cycling and Public Transport as per the Advice Note. This should be read in conjunction with the WRAT, which is included in **Annex E**.

Christ's Hospital Road

4.4.8. The Walking Route Audit score is 24 out of 40 which is below a score above 28 out of 40 which is deemed the minimum level of provision score.

4.4.9. Christ's Hospital Road provides access from the Development to Christ's Hospital Railway station.

4.4.10. The western section of Christ's Hospital Road, shown in **Figure 4-5**, is a two-way road with a give way priority working acting as a traffic calming feature. The pedestrian infrastructure consists of a footway on both sides of the road, separated from the carriageway by raised kerbs, providing a safe walking route. The road surface appears well-maintained with double yellow lines along the edge. Street lighting is provided by tall lamp posts spaced along the right side, ensuring illumination during nighttime.

4.4.11. The eastern section consists of pedestrian footway provision on the southern side of the carriageway separated by a grass verge in some locations. The usable footway varies in width between 1.2-1.5m (verge clearance could provide additional width in some locations), with only one of the three crossings having dropped kerbs and tactile paving. There is no street lighting along this stretch, which reduces safety during nighttime. This footway on this section of Christ's Hospital Road suffers from overgrown vegetation and poor fencing at the eastern end which reduces the useable width of the footway. **Figure 4-6** presents the existing conditions on the eastern section of Christ's Hospital Road.

4.4.12. The low-speed nature of this section of Christ's Hospital Road and low vehicle movements will enable comfortable cycle usage on-street. A traffic survey undertaken in September 2025 presented that the AADT two-way flow is approximately 3,000 vehicles.

4.4.13. Due to the score, potential mitigation has been considered within Chapter 6 of the TA.

Figure 4-5 - Christ's Hospital Road (Western section) - Existing Conditions

From the East to the West

From the East to the West

Figure 4-6 - Christ's Hospital Road (Eastern section) - Existing Conditions

From the West to the East

From the West to the East

Worthing Road – 1

4.4.14. The Walking Route Audit score is 30 out of 40 which is above 28 out of 40 which is deemed the minimum level of provision score.

4.4.15. The northern section of Worthing Road provides access from the Development to the local bus stops and a pub. This link benefits from a continuous footway on the eastern side of Worthing Road with a clear kerb upstand, giving defined pedestrian traffic separation and a comfortable walking edge, mature vegetation provides visual screening, shade, and a calm streetscape, while regularly spaced gullies indicate positive drainage provision. The width of the footway is between 1.5-2m, and the surfacing is of good condition. There are sections of footway on the western side of Worthing Road between the most northern residential property and New Road in the north and Southwater Street to Fletchers towards the middle of the route.

4.4.16. There are four crossings of Worthing Road in this section, all of the crossings would be defined as informal crossings with dropped kerbs, tactile paving and a refuge island. Two of the crossings are located either side of the Blakes Farm Road roundabout and the two other crossings are located either side of the Cedar Drive roundabout. Street lighting columns on the far-side verge offer baseline illuminance and wayfinding, and the longitudinal road markings and simple alignment support driver guidance.

4.4.17. In terms of cycling provision, no formal cycle facilities are provided, the speed limit on Worthing Road varies between 30-40mph which could provide a barrier to casual cyclists whilst experienced cyclists would likely utilise the road.

4.4.18. It is noted that there are a number of bridleways that connect across the Site and onto Worthing Road but no formal crossing points provided on Worthing Road to connect into the footway. Whilst the overall score is considered acceptable, given the location of the Development, further improvements along Worthing Road is considered within the Walking and Cycling Strategy in Chapter 6 of this document.

Figure 4-7 - Worthing Road 1 - Existing Conditions

Northbound

Northbound

Worthing Road – 2

4.4.19. The Walking Route Audit score is 33 out of 40 which is above 28 out of 40 which is deemed the minimum level of provision score.

4.4.20. The northern section of Worthing Road provides access from Chessel Avenue to the Southwater local centre on the southern side passing the Southwater Academy Infant and Junior Schools. There is a continuous footway on the eastern side of the carriageway, whilst on the western side the footway is broken up. The width of the footways on either side of the carriageway is between 1.5-2m. There are six crossing points of Worthing Road on this section, they include two zebra crossing, two signalised crossings and two informal crossings spread evenly along the route. Each of the crossings of the side roads have basic crossing facilities including dropped kerbs and tactile paving.

4.4.21. Along this section of Worthing Road there are central refuge islands with a reflective bollard, high-contrast hatch markings, and edge lining to organise movements and visually narrow the carriageway, helping to moderate approach speeds. Street-lighting columns on both approaches give the strong night-time presence

4.4.22. **Figure 4-8** below shows provides a visual indication of the existing pedestrian provision which is considered to be good. The footway surfacing is deemed of good quality for all users.

4.4.23. In terms of cycling provision, no formal cycle facilities are provided, the speed limit on Worthing Road is 30mph which could provide a barrier to casual cyclists due to the amount of traffic on this section of Worthing Road whilst experienced cyclists would likely utilise the road.

Figure 4-8 - Worthing Road 2 - Existing Conditions

Northbound

Northbound

Blakes Farm Road - 1

4.4.24. The Walking Route Audit score is 32 out of 40 which is above 28 out of 40 which is deemed the minimum level of provision score.

4.4.25. Blakes Farm Road southern provides connection between Worthing Road and Oakhurst Business Park. This section of Blakes Farm Road offers strong pedestrian provision through a continuous, well-maintained footway that is clearly separated from the carriageway by a defined kerb line and boundary planting, creating a comfortable walking environment. Each footway beside the carriageway is over 2m wide.

4.4.26. Street-lighting columns are positioned along the route to support night-time wayfinding and personal security, while the horizontal curvature and consistent edge definition help encourage lower vehicle speeds and improve driver attentiveness.

4.4.27. From a road-safety perspective, the build-out/pinch-point feature with bollards and the “give way to oncoming vehicles” signage help manage priority, reduce effective carriageway width, and encourage lower vehicle speeds, while clear edge delineation and markings improve driver awareness and predictability for pedestrians.

4.4.28. In terms of cycling provision, no formal cycle facilities are provided, the speed limit on Blakes Farm Road is 30mph but due to the alignment of the road, vehicle speeds are likely to be lower than 30mph making cycling on road possible to all users, alongside the low traffic flows.

Figure 4-9 - Blakes Farm Road 1 - Existing Conditions

Eastbound

Eastbound

Figure 4-10 - Blakes Farm Road 1 - Existing Conditions

Northbound

Northbound

Blakes Farm Road – 2

4.4.29. The Walking Route Audit score is 28 out of 40 which is the same as the minimum level of provision score of 28 out of 40.

4.4.30. The northern section of Blakes Farm Road provides access from Worthing Road to Oakhurst Business Park. A footway is provided on the western side of the carriageway, the footway varies in width between 1.5-2.5m. The footway surface has been newly laid and would provide a good surface for users. Street lighting is provided however the route is not overlooked which could detract users at night-time.

4.4.31. In terms of cycling, this section of Blakes Farm Road has a speed limit of 40mph but has no carriageway markings to try and encourage lower vehicle speeds. The number of vehicles on this road is likely to be low as they would only be associated with Business Park, this would make it more attractive to experienced cyclists. The route could be unattractive to less casual cyclists due to the link likely carrying larger vehicles associated with the Business Park.

Figure 4-11 - Blakes Farm Road - 2

Southbound

Northbound

Southwater Street

4.4.32. The Walking Route Audit score is 31 out of 40 which is above 28 out of 40 which is deemed the minimum level of provision score.

4.4.33. Southwater Street links Worthing Road to Lovers Lane which then provides access for cyclists into Horsham via the Byway, Southwater Street is included as part of the LCWIP for cycle access into Horsham from Southwater. Southwater Street offers a clear, continuous footway with a consistent kerb line on the northern side of the carriageway from Worthing Road to Kings Lane.

4.4.34. The footway width on either side of the carriageway varies between 1.5-2m, with some sections of 1m footway due to vegetation encroachment making the less desirable to users. This occurs on the section around the A24 bridge where the speed limit increases for 40mph. Limited street lighting provision appears at the western end of Southwater Street, which would aid nighttime wayfinding and personal security, and the open frontage helps maintain natural surveillance.

4.4.35. The straightforward alignment and good edge definition create a legible carriageway that encourages predictable driver behaviour, with ample sightlines for pedestrians to be seen and to assess crossing opportunities.

4.4.36. In terms of cycling provision, no formal cycle facilities are provided, the speed limit on Southwater Street is between 30-40mph. Southwater Street is part of the LCWIP secondary route from Southwater to Horsham via Lovers Lane and as such there is an opportunity to encourage more cyclists by reducing the speed limit to 30mph for the whole route and removing centre line road markings.

Figure 4-12 - Southwater Street - Existing Conditions

Westbound

Eastbound

Southwater Business Park / Worthing Road

4.4.37. The Walking Route Audit score is 29 out of 40 which is above 28 out of 40 which is deemed the minimum level of provision score.

4.4.38. The northern section of Worthing Road provides access from Downs Link to the Southwater Business Park. Worthing Road provides a continuous, well-delineated footways on the left and the right side of the road, set apart from the carriageway by a consistent kerb line. The footway width on either side of the carriageway varies between 1.5-2m.

4.4.39. Street lighting is delivered via column mounted luminaires, enhancing nighttime legibility and perceived safety, while the generally open alignment supports adequate intervisibility. The limited frontage activity and uncluttered edges promote consistent vehicle trajectories, supporting a legible, low conflict environment for pedestrians.

4.4.40. In terms of cycling provision, no formal cycle facilities are provided, the speed limit on Worthing Road is 30mph which could provide a barrier to casual cyclists whilst experienced cyclists would likely utilise the road.

Figure 4-13 - Southwater Business Park - Existing Conditions

Eastbound

Eastbound

Christ's Hospital - R2

4.4.41. The Walking Route Audit score is 29 out of 40 which is above 28 out of 40 which is deemed the minimum level of provision score.

4.4.42. The bridleway connects from Two Mile Ash Road to Christ's Hospital Station via Christ's Hospital School and the Downs Link. The width of the bridleway is wider than 3m along the whole route, The overall alignment is legible with good forward visibility, and the open setting supports a safe, relaxed pedestrian experience with minimal conflicts and clear sightlines with wayfinding provided throughout for users. A couple of issues with the route is the lack of street lighting, some drainage issues and that the route is not overlooked. The route for cyclists would be attractive due its off-road nature. The issues outlined above for pedestrians and still significant for cyclists and as such improvements would be required to encourage additional cycle usage.

Figure 4-14 - Christ's Hospital R2 - Existing Conditions

Westbound

Eastbound

4.5. SUMMARY

4.5.1. In Summary, the Active Travel England audit tool highlights that all the routes audited achieve the minimum provision standard of 70%, except Christ's Hospital Road. There are still areas for improvement on some of the routes due to zero being scored against some of the categories. Table 4-5 provides a summary of the opportunities for improvements to several routes around the Site.

Table 4-5 – Summary of Opportunities

Route No.	Name	Key Destinations	Total Score	Opportunities
1	Christ's Hospital Road	Christ's Hospital Station	24	Improve the footway width, reduce verge and overgrown vegetation
2	Worthing Road - 1	Pub and Bus Stops	31	Improve connectivity between the development and the existing bus stops
3	Worthing Road - 2	Southwater Infant and Junior Academy and Southwater Local Centre	34	Improve connectivity between the development and the eastern side of Worthing Road.
8	Christ's Hospital - Route 2	Christ's Hospital Station	29	Improve visibility of the pedestrian crossing on Two Mile Ash Road for the Bridleway.

4.5.2. Overall, the existing opportunities for off-site walking are good as shown. Whilst the cycle provision off-site is limited, on-street cycling is possible for users to access key destinations due to low speeds and vehicle flows on these roads. Further to this the development will provide a direct and segregated access to the Downs Link which will provides a regional connection across West Sussex.

5. PROPOSED DEVELOPMENT

5.1. DESCRIPTION OF PROPOSED DEVELOPMENT

5.1.1. The description and quantum of the application is as follows:

> *"Outline planning application, with all matters reserved (except for primary access to the highway) for a phased development comprising: the demolition of existing buildings and the construction of residential dwellings (including affordable housing) (Use Classes C2 and C3); a mixed-use neighbourhood centre (Use Classes E and F); education facilities (Use Class F1(a)); business and employment floorspace (Use Classes B2, B8 and E(g)); redevelopment of existing agricultural buildings including construction of a building for community use (Use Classes E and F2); improvements to public rights of way; sports pitches; gypsy and traveller pitches/plots; public open space; landscaping, and associated infrastructure."*

- Up to 1,000 dwellings (Use Class C3) and up to 80 specialist accommodation units (Use Class C2);
- Up to 2,000 sqm neighbourhood centre, comprising commercial and community space (Use Class E and F);
- Up to 4 hectares (17,500 sqm GIA for ES purposes) of Business/Employment Space (Use Class B2, B8, and E(g));
- A 1 Form-Entry (FE) Primary School (Expandable to 2FE) (Use Class F1(a)); and a nursery (Use Class E(f)), to accommodate a minimum of 60 places;
- A 6FE Secondary School (expandable to 8FE) (Use Class F1(a));
- 5 Gypsy and Traveller pitches/plots;
- Sports pitches; and
- Public Open Space, including retained woodland, natural and semi-natural green space, amenity green space, parks and gardens, and Children and Youth Play Spaces (LAPs, LEAPs, and a NEAP).

5.1.2. The application an outline planning application, with all matters reserved (except for primary access to the highway and therefore a number of parameter plans have been prepared and are submitted as part of the application for reference. The Land Use Parameter plan (0006-RevC) and Illustrative Masterplan (0015-Rev G) are included in the Design and Access Statement.

5.1.3. In terms of the education facilities, it is understood that these will comprise the following uses – which the Applicant has proposed to contribute to by providing the land, but would be delivered by WSCC:

- One form of entry primary school (expandable to two forms of entry to incorporate SEND);
- Up to six form entry secondary school (expandable to 8 forms of entry to incorporate SEND); and
- One new full-day care nursery, to accommodate a minimum of 60 places in total.

5.1.4. Whilst not considered to be needed – as detailed later in this Chapter – space for additional car parking is allowed for located immediately to the east of Christ's Hospital rail station, this is in line with the Strategic Policy for the Site HA3. This potential arrangement is shown on **Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0110**.

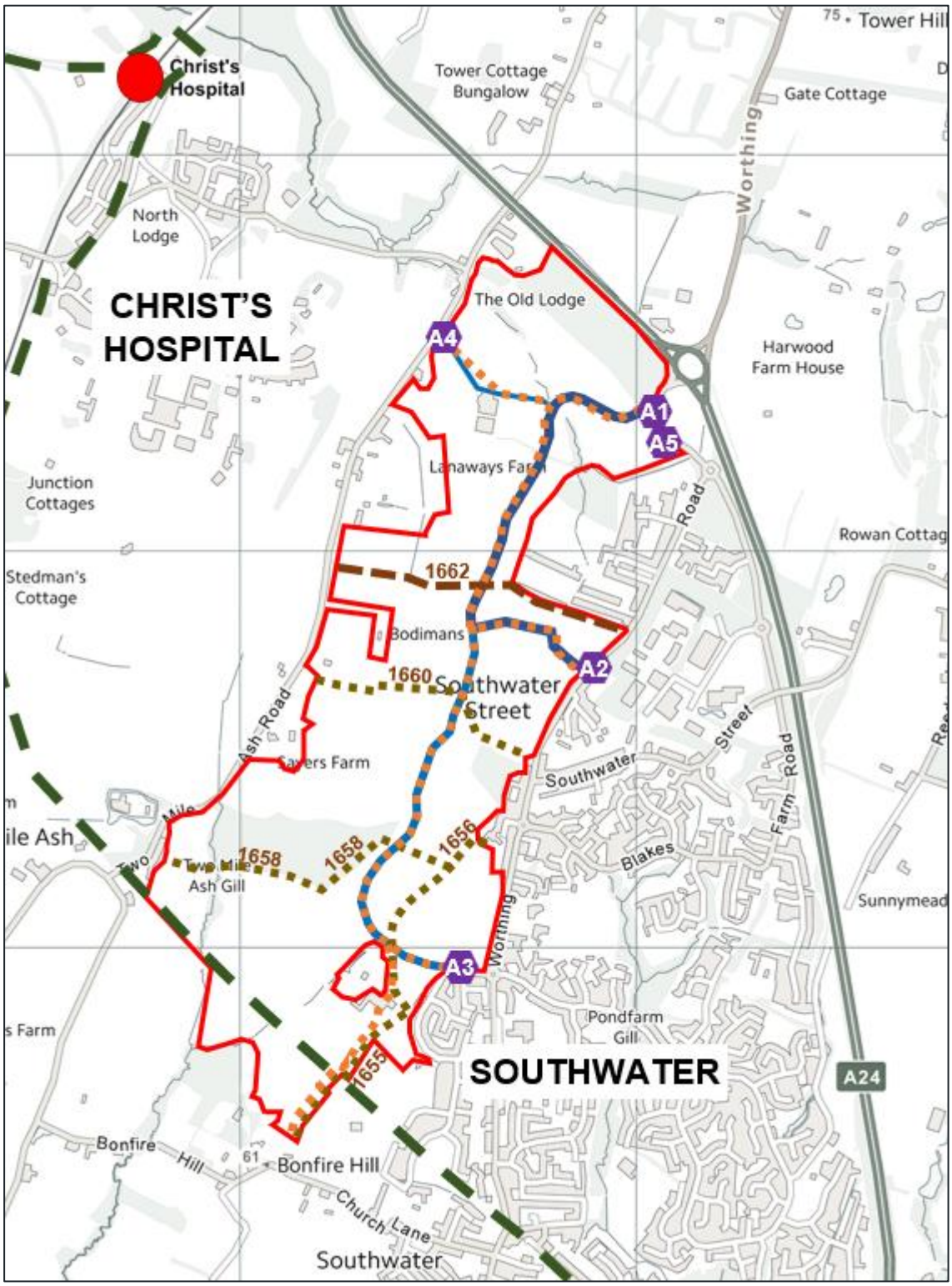
5.2. SITE ACCESS STRATEGY

5.2.1. The Site access arrangements are detailed below:

- **A1. Primary point of access** (all modes) to be provided by way of a proposed new four-arm priority roundabout junction on Worthing Road, southwest of the A24 / Worthing Road junction (Hop Oast Roundabout). Two of the arms would serve the Site. This arrangement is shown on **Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0103**;
- **A2. Primary point of access** (all modes) to be provided by way of a proposed new simple priority junction with ghost island right turn lane from the western side of Worthing Road, north of the existing Netherton Close junction - this arrangement is shown on **Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0101**;
- **A3. Primary point of access** (all modes) to be provided by way the realigned Chessall Avenue and a new priority junction serving the Broadacres development - the proposed secondary road will form a continuation of the existing northern section of Chessall Avenue and will form the major arm of the access junction, with the existing western section of Chessall Avenue forming the minor arm of the junction - this arrangement is shown on **Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0100**;
- **A4. Primary point of access** to be provided by way of improvements to the existing priority junction serving agricultural buildings from the eastern side of Two Mile Ash Road, located some 180 metres south of the Christ's Hospital Road junction - this arrangement is shown on **Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0102**;
- **A5. Primary point of Gypsy's and Travellers -** A left in and left out provide access into the Gypsy and Traveller pitches. The access arrangement for both land uses will be finalised through the next stages of the planning process. This arrangement is shown on **Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0104**;

5.2.2. The Site access strategy is also summarised at **Figure 5-1** below. A full-scale version of this figure, is included at **Annex F**. Stage 1 Road Safety Audit's will be undertaken of all highway access designs following agreement in principle with the WSCC, this will be undertaken during the determination period.

Figure 5-1 – Summary of Proposed Site Access Strategy



5.2.3. Further details relating to the access strategy for NMUs is provided later in this Chapter and in Chapter 6.

5.3. CHRIST'S HOSPITAL CAR PARK

5.3.1. The area of the Site that is located to the east of Station Road (at Christ's Hospital railway station) has been identified as a location that could be used as a potential new car park and bus turning area serving Christ's Hospital railway station. This area could also accommodate additional cycle storage facilities. This reflects Strategic Policy HA3 of the Horsham District Local Plan Regulation 19.

5.3.2. In order to establish the requirement for this additional car parking area, a car parking beat survey was commissioned by WSP to understand the existing car parking demands throughout a weekday within the existing car parks at the station and on nearby on-street areas where car parking is observed to occur (Station Road). The survey was undertaken by Intelligent Data on Tuesday 9th September 2025, the results of which are included at **Annex D**.

5.3.3. The results of the parking beat survey shows that the total capacity of the station car parks and on-street areas combined amounts to 114 car parking spaces, including 91 spaces within the car parks and the ability to park up to 23 cars informally on-street on Station Road (based on a theoretical on-street capacity calculated at 5m per parked car).

5.3.4. The surveys showed that the maximum parking demand within the station car parks at any one time amounted to 39 parked cars (at 1300 hours), amounting to a 43% parking stress within the car parks, while the maximum demand on Station Road amounted to 17 cars (at 1000 and 1300 hours) amounting to a 74% parking stress in terms of the capacity of Station Road.

5.3.5. The maximum parking demand at any one time within the car parks and Station Road combined amounted to 56 parked cars (at 1300 hours), equating to a total parking stress of 46% within the total 114 car parking space capacity. Assuming that the on-street car parking demands on Station Road (up to 17 cars) were transferred to the existing station car parks – e.g. in the event that parking restrictions were put in-place on Station Road by way of a TRO - then the maximum parking stress within the existing station car parks would then increase to 62% - i.e. there would still be spare parking capacity for at least 35 cars at any time.

ADDITIONAL PARKING DEMANDS ASSOCIATED WITH PROPOSED DEVELOPMENT

5.3.6. At the outset, the vision of the Proposed Development is to promote active modes of transport to access Christ's Hospital station and therefore the delivery of any additional parking would be contrary to the aims of the development.

5.3.7. Notwithstanding this, to inform the level of additional car parking demand that could be generated by the Proposed Development, reference has been made to the projected rail demands from future users of the Site, as set out at Chapter 8.

5.3.8. The Proposed Development is projected to attract in the order of 35 additional two-way movements by rail per day in the AM Peak and 32 additional two-way movements by rail per day in the PM peak. This equates to 35 arrivals and 35 departures across the peak periods. The majority of rail users associated with the Proposed Development are considered most likely to travel to Horsham rail station –given the good quality bus services that exist to Horsham rail station and the enhancements that would be made as part of the Public Transport Strategy.

5.3.9. If an assumption that as many as half of the projected rail users travel via Christ's Hospital rail station and choose to drive to the station by single occupancy private car, the additional car parking demand could amount to in the order of 18 additional cars at Christ's Hospital, which also robustly assumes that each passenger is a car driver and there is no drop-off or shared car use.

5.3.10. Combined with the existing demands set out previously, this would amount to a total future parking demand of approximately 74 cars. This demand could be accommodated within the existing station car parks (total parking stress level of 65%) with no reliance on additional parking areas outside of the existing car parks.

5.3.11. On the basis of the survey results, combined with projected additional future demands, it is therefore apparent that an additional car parking area is not warranted at the current time.

5.3.12. Furthermore, adding more parking does not align with the development's vision, and initial consultations with WSCC indicate agreement that extra parking should only be considered as a last resort if a problem arises.

5.3.13. Whilst a car park is not currently anticipated as necessary, the applicants have identified a potential indicative arrangement for car parking and bus turning in this area of the Site (**Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0110**) to ensure future flexibility should circumstances require it. If implemented, a 'Monitor and Manage' approach would be employed at the existing car park.

5.3.14. It is proposed that the Monitor and Manage would include the undertaking of a parking beat survey at approx. 500 occupations which can be secured via condition or a S106 obligation. Whilst not anticipated, should the results from the parking survey indicates that the existing car park is approaching capacity, WSCC have an option to request the additional parking provision or other potential methods of reducing parking demand should this be in line with relevant sustainability policy at that time. A suitable trigger and mechanism will be included within the S106.

5.4. INTERNAL SITE LAYOUT

5.4.1. The internal Site layout, including the network of internal access roads and NMU-only routes will be determined in detail via subsequent reserved matters planning application(s) in due course, however the envisaged overarching road layout strategy is set out below. Details relating to the Site layout strategy in respect to pedestrians and cyclist connectivity, including integration with wider off-site routes, is provided in the Walking and Cycling Strategy at Chapter 6.

5.4.2. Figure 5-1 shows the general principle of the envisaged road network. A primary Road links access A1 with A2 and provides access to the Employment land, secondary school and neighbourhood centre. A secondary road links access A3 (Chessall Avenue) with the Neighbourhood Centre. An additional secondary road provides a link from the Primary Road to access A4 on Two Mile Ash Road.

5.4.3. A range of secondary and tertiary streets and shared surfaces would also be provided, serving individual development parcels. The function of individual streets will differ depending on their position within the Proposed Development and the areas through which they operate.

5.4.4. To ensure that the character of each street responds appropriately to its context, the projected street types have been subdivided into categories, as below. Further details are provided in the Design and Access Statement that is submitted with the application.

- **Primary Road** – The main road link into the Site from the northern roundabout. The Primary Road will link the northern access roundabout (A1) to Worthing Road access junction (A2) with a design speed of 30mph and carriageway width of 6.75m. This section of road will be delivered to provide sufficient capacity for primary traffic movements within the Proposed Development including HGV associated with the employment zone and local centre. A typical section of the Primary Road is presented in Chapter 7 of the Design and Access Statement. Inclusion of dedicated cycleway on one side of the carriageway and footway(s) alongside the carriageway to LTN 1/20 standards will be in place from the access roundabout to the junction with the southern secondary road. Typically, no direct access to residential properties would be provided from this road. The road would have the potential to accommodate buses and bus stops as required. Access to the secondary schools would be taken from this road and the neighbourhood centre.
- **Secondary Roads** – The main east and north/south connections between the primary road and the proposed Site accesses at Two Mile Ash Road and Chessall Avenue with a design speed limit will be 20mph. Road sections of the Secondary Road network are presented in the Design and Access Statement , with the design of these roads suitable to accommodate refuse collection and fire access with widths varying between 5.5-6.75m. The Secondary Road proposed from the Primary Road to the Chessel Avenue will accommodate a 3m segregated cycle route to continue the north south cycle connection through the development, on one side of the carriageway. Suitable pedestrian facilities to be provided.
- **Tertiary Streets** – these feed off secondary roads and provide cross-parcel permeability and provide access to dwellings and are suitable for refuse collection. These streets are typically narrower (circa 5m), less formal in character and hold less traffic than other street types. These streets may accommodate on-street parking. Areas with no road markings may be used to encourage reduced vehicle speeds (20mph or less) and promote pedestrian priority.
- **Shared Surfaces** - The lowest order streets, providing access to limited numbers of homes and will vary in widths. Shared surface streets would comprise different surfacing materials to other street types - block paving and bonded gravel for example - in order to encourage low vehicles speeds and to encourage general priority to pedestrians and cyclists over vehicles.

PRIMARY ROAD DESIGN

5.4.5. There are various layouts that have been identified in terms of the design of the primary road and the arrangement of the associated facilities along its length – including for pedestrians, cyclists and motorised vehicles – with flexibility in terms its ultimate configuration at the reserved matters / detailed design stages. Various configurations may also be provided at different sections along its length, reflective of the frontages along each side. Further details are set out in Chapter 7 of the Design and Access Statement, including additional detail relating to the potential design of the other street types.

Non-Motorised Users

5.4.6. Various connections for NMUs will be provided within the Site, as well as to / from existing NMU routes in the local area.

5.4.7. In addition to the various facilities that would be incorporated alongside the streets, a network of traffic free paths would be provided - including the network of retained PRoWs (which would be enhanced) and new traffic free paths that would also be constructed as part of the Proposed Development.

5.4.8. It is particularly noteworthy that a new trim trail - of a minimum of 5km in length - will be incorporated within the Site, providing an additional route for pedestrians and cyclists, celebrating both nature, heritage and archaeology and encouraging healthy and active lifestyles. A connection to the Downs Link would also be provided within the southern part of the Site.

5.5. PARKING

5.5.1. Car and cycle parking provision will be considered at the reserved matters stage. However, it is envisaged that parking provision for each land use on the site would be provided fully in accordance with local standards applicable at the relevant time.

5.5.2. The relevant local parking standards at the time of writing are those provided by WSCC which is considered to be the most up to date, with additional standards also provided in the SNDP. There are no specific HDC parking standards, although there is general guidance on parking provision provided by HDC, as detailed at Chapter 2 of this TA.

5.5.3. A review of the WSCC standards is provided below. It is anticipated that the parking quantum at the Site will meet or exceed the WSCC standards.

WSCC PARKING STANDARDS

5.5.4. The current standards used by WSCC are those set out in the 'West Sussex County Council Guidance on Parking at New Developments' (September 2020) guidance document a summary of which is set out below. This guidance document is accompanied by the WSCC 'Car Parking Demand Calculator' which *"applies to residential developments where requirements are calculated on a site-specific basis*"[1].

RESIDENTIAL PARKING PROVISION

5.5.5. The WSCC guidance document sets out the following residential car parking standards for the respective 'Parking Behaviour Zone' (PBZ) within which the Site is located – 'PBZ 2'. The document does not refer to these as being 'minimum' or 'maximum' standards, rather that *"the expected parking demand per dwelling… should be used to calculate the number of parking spaces that should be provided in the design of new residential developments".*

Table 5-1 – WSCC Residential Vehicular Parking Standards

Number of Bedrooms	Number of Habitable Rooms	Spaces per Dwelling (PBZ2)
1	1 to 3	1.4
2	4	1.7
3	5 to 6	2.1
4+	7 or more	2.7

[1] https://www.westsussex.gov.uk/roads-and-travel/information-for-developers/pre-application-advice-for-roads-and-transport/#additional-information

5.5.6. The guidance goes on to state that: *"to accommodate potential variations in parking demand within a single ward, consideration may be given to varying the expected parking demand by 10% above or below"*.

5.5.7. Similarly, adjustments to the parking quantum are allowable within the WSCC guidance in order to meet with current and emerging guidance on the promotion of sustainable travel modes and choices where alternative travel choices are available – such as *"travel plans, public transport contributions, and other sustainable travel initiatives".*

5.5.8. In terms of visitor parking, the guidance states that *"no special provision should be made for visitors where at least half of the parking provision associated with the development is unallocated. In all other circumstances it may be appropriate to allow for additional demand for visitor parking of 0.2 spaces per dwelling".*

5.5.9. In relation to garages, the WSCC guidance states that these should be at least 6m x 3m internally.

5.5.10. In relation to cycle parking provision for residential use, the WSCC guidance sets out the following requirements.

Table 5-2 – WSCC Residential Cycle Parking Standards

Type	Dwelling Size	Cycle Provision (per unit) - Minimum
Houses	Up to 4 rooms (1 & 2 bed)	1 space
Houses	5+ rooms (3+ bed)	2 spaces
Flats	Up to 3 rooms (1 & 2 bed)	0.5 space (if communal storage otherwise, same as 1 & 2 bed house)
Flats	4+ rooms (3+ bed)	1 space

5.5.11. In relation to parking provision for people with disabilities and motorcycle parking, the WSCC guidance states that this should be consistent with Manual for Streets.

NON-RESIDENTIAL PARKING PROVISION

5.5.12. The WSCC guidance document sets out the following car and cycle parking standards for non-residential land uses relevant to the Proposed Development – albeit it is noted that these standards "*should only be used as an initial guide for developers, who should undertake a site-specific assessment and seek to balance operational needs, space requirements, efficient use of land and cost attributed to providing parking and where relevant, attracting/retaining staff."*

Table 5-3 – WSCC Non- Residential Vehicular and Cycling Parking Standards

Use Class	Vehicular	Cycle Provision – Minimum
B2 General Industrial	1 space per 40sqm	1 space per 200sqm for staff and 1 space per 500sqm for visitors
B8 Storage	1 space per 100sqm	1 space per 500sqm for staff and 1 space per 1000sqm for visitors
E Commercial, Business and Services – **shops and retail**	1 space per 14sqm	1 space per 100sqm for staff and 1 space per 100sqm for customers
E Commercial, Business and Services – **Financial and Professional Services**	1 space per 30sqm	1 space per 100sqm for staff and 1 space per 200sqm for customers
E Commercial, Business and Services – **food and drink (mainly on premises) e.g. restaurants and cafés**	1 space per 5sqm of public area and 2 spaces per bar (or 5m length of bar for large bars) for staff parking to be clearly designated	1 space per 4 staff and 1 space per 25sqm for customers
E Commercial, Business and Service – **Business (office, research and development and light industrial process)**	1 space per 30sqm	1 space per 150sqm for staff and 1 space per 500sqm for visitors
E Commercial, Business and Service – **Non-residential institutions (medical or health services, crèches, day nurseries and centres)**	Site-specific assessment based on travel plan and needs	Site-specific assessment based on travel plan and needs
E Commercial, Business and Service – **Assembly and Leisure (indoor sport, recreation or fitness, gyms)**	1 space per 22sqm. For large scale places of assembly serving more than a local catchment, 1 space per 15sqm.	1 space per 4 staff plus visitor/customer cycle parking

Use Class	Vehicular	Cycle Provision – Minimum
F.1 Non-residential institutions (education, art gallery, museum, public library, public exhibition hall, places of worship, law courts)	Site-specific assessment based on travel plan and needs	Site-specific assessment based on travel plan and needs
F.2 Shop no larger than 280sqm (selling mostly essential goods and at least 1km from another similar shop); community hall, outdoor sport/recreation area, indoor or outdoor swimming pool, skating rink	1 space per 14sqm	1 space per 100sqm for staff and 1 space per 100sqm for customers

5.5.13. The guidance goes on to state that the exact provision should be based on factors such as the exact land use, the trip rate associated with the development and the user group of staff visitors at the Site (including shift patterns) and that *"due regard should be paid to the unique characteristics of each land-use."*

5.5.14. The guidance also states that the following should also be taken into account when determining the exact parking arrangements:

- Survey or business data to ascertain the peak parking periods and demand;
- The geographical location of the Site along with the levels of accessibility for non-car mode users; and,
- Local data such as Census travel to work data about mode share and information detailed in supporting travel plans.

ELECTRIC VEHICLE CHARGING

5.5.15. In relation to electric vehicle charging, the WSCC guidance states "The Government's 'Road to Zero Strategy' sets out an ambition for at least 50% — and as many as 70% — of new car sales to be ultra-low emission by 2030, alongside up to 40% of new vans.

5.5.16. The Building Regulations Part S published June 2022 details the latest standards relating to electric vehicle charging infrastructure. These standards differ to those set out within the WSCC standards, exceeding in some instances. To this end, the exact quantum and type of electric vehicle charging infrastructure will be determined at the reserved matters stage through discussions with WSCC / HDC and with reference to the most relevant policy / best-practice guidance applicable at that time.

6. WALKING AND CYCLING STRATEGY

6.1. INTRODUCTION

6.1.1. This Chapter presents the on and off-site walking and cycling strategy for the Proposed Development. It details the proposed provision on-site, including detailing the different types of street provision, and outlines the off-site strategy on key routes and to key destinations. This chapter should be read in conjunction with the Active Travel Assessment section within Chapter 4.

6.1.2. Whilst the Proposed Development looks to introduce new infrastructure, including connections to public transport and new on-site facilities for both existing and new residents to reduce the need to travel further afield, it is recognised that there is a deficit in the cycle infrastructure between Southwater and Horsham - as set out within the LCWIP - and consequently the Proposed Development will seek to support the delivery of a series of improvements to encourage and enhance connectivity via active travel modes.

6.2. ON-SITE WALKING AND CYCLING INFRASTRUCTURE

6.2.1. The overall Site masterplan has been designed to encourage the use of active travel modes across the Site, notably in a north/south direction. The routes focus on key on-site destinations, including the employment / school land at the north of the Site, the village centre and the proposed internal road network. Whilst this application is in outline, it is anticipated that the broad principles that will be followed for the provision of walking and cycling infrastructure on-site, based upon road hierarchy, will be as follows:

- Primary Road – This will be in-line with latest walking and cycling guidance, which is currently LTN 1/20. Currently, it is envisaged that the primary road will accommodate a 3-4m segregated cycleway on one side of the road (western) adjacent to the carriageway, split into 1.5m - 2m cycle lane in each direction. The walking infrastructure will be a 2m wide footway on both sides of the Primary Road. The Primary Road corridor has however been designed to allow flexibility along its full length and therefore also allows for cycle provision to be provided on both sides of the road compliant to LTN 1/120 should this be required.
- Secondary and Tertiary Streets – Designed as 20mph streets. Cycle facilities will be on-carriageway due to the low vehicle speeds and overall low traffic flow. Pedestrian facilities will be provided adjacent to the carriageway on both sides wherever feasible.
- Shared Surfaces – Cycle facilities will be on-carriageway due to the low vehicle speeds and low number of vehicles on the network. Pedestrian facilities will be provided at carriageway level by way of suitably designed shared spaces, or adjacent to the carriageway with no kerb line.
- Network of traffic-free walking and cycle routes – The Proposed Development will be designed to have a number of traffic free walking and cycle routes connecting residents across the site to key services and to the off-site walking and cycling infrastructure. Further details are provided below.

6.2.2. The Proposed Development will retain the recent improvements to Bridleway 1662, but the development will enhance the route further. As the Bridleway crosses the primary road an appropriate crossing will be provided to provide a safe route for all users. Furthermore, visibility of the route will be enhanced to provide natural surveillance.

6.2.3. The Proposed Development will deliver enhancements to public footpaths 1660, 1658, 1656 and 1655 as they route through the site, suitable for forecast increase usage from on-site users. This will include a range of measures including improved surfacing, visibility to provide natural surveillance and widening in feasible locations to encourage usage.

6.2.4. A new Cycleway between Chessall avenue and the new secondary school and local centre via Great House Farmhouse. This route is partly routed away from the secondary road to provide a pleasant off-road route that allows users to appreciate the natural landscape and heritage assets at Great House Farmhouse and Courtland Wood.

6.2.5. A new link from Great House Farmhouse to the Downs Link. The surface of the Downs Link within the Site, which runs within the southern section of the Site between Southwater Village Centre and Two Mile Ash Road, will also be improved with an appropriate surface that will be agreed with Horsham County Council, alongside financial contributions which can be used to provide improvements to the Downs Link external to the Site as it extends northwards towards Christ's Hospital. It is also anticipated that CIL funding can be used to upgrade the surfacing where necessary to Bridleway 1642 outside of the Site boundary.

6.2.6. Any improvements provided to the PRoW on Site will be delivered in a sensitive manner, similar to that delivered within the Broadacres development, and will complement the landscape vision of the development whilst protecting any ecological sensitive areas.

6.2.7. Full details are shown on the KPK Movement Parameter plan in the Design and Access Statement.

6.3. OFF-SITE WALKING AND CYCLING STRATEGY

6.3.1. This section outlines the off-site walking and cycling strategy for the Proposed Development. The strategy focuses on key destinations within a two-kilometre radius for walking trips and a five-kilometre radius for cycling trips of the site - as these are the journeys that can generally be undertaken via active travel modes if suitable infrastructure is provided (albeit many cyclists comfortably cycle 8km).

6.3.2. WSP have reviewed existing conditions within the Active Travel Assessment in Chapter 4 of this Transport Assessment and the following are considered to be the key off-site destinations for potential future occupiers of the Site.

- Christ's Hospital Rail Station (West of the Site);
- Southwater Village Centre (South-East of the Site) - including Lintot Square, Southwater Junior Academy, Hen and Chicken Public House, etc.; and
- Oakhurst and Southwater Business Parks

6.3.3. The proposed internal walking and cycling routes within the masterplan are designed to create a comprehensive movement strategy, seamlessly linking the Site with off-site areas and key destinations. A notable feature of the masterplan is a cycleway located on one side of the primary street connecting the proposed secondary school in the north of the Site, running southwards through the development, and extending to the Downs Link. This cycleway will effectively connect Lintot Square and other areas within Southwater, envisioned as a well-defined and positive route. The southern section, near Great House Farmhouse, is designed with sensitivity to the rural and historic setting of the area.

6.3.4. The cycle link in this region is crafted to avoid an overly engineered appearance. Instead, the surfacing, lighting, and signage will be contextually appropriate, with specific details to be finalised during the reserved matters stage. The design will ideally feature minimalistic and countryside-style elements to preserve the area's character. This design approach aims to maintain the area's rural nature while providing functional route for both walking and cycling.

6.3.5. The off-site walking and cycling strategy will complement the measures detailed in the Horsham Golf Course application. The Horsham Golf Course application walking and cycling strategy will improve the links to the Horsham Park & Ride and the cycling connections into Horsham via Lovers Lane.

6.3.6. A review of the identified routes is provided below. It should be noted that whilst these potential routes have been subject to initial discussion and engagement with WSCC, any mitigation identified would be subject to further investigation, including an understanding of potential integration with the wider NMU improvement schemes being undertaken by WSCC and other strategic sites in this area - notably the continued work WSCC are undertaking on the LCWIP.

6.3.7. WSP undertook a site visit alongside WSCC to discuss the walking and cycling strategy outlined in this chapter, this has led to some amendments to the strategy that was previously set out within the 2022 planning application.

6.3.8. Stage 1 Road Safety Audit's will be undertaken of all the Off-site Walking and Cycling plans following agreement in principle with the WSCC, this will be undertaken during the determination period.

ROUTE TOWARDS CHRIST'S HOSPITAL STATION

6.3.9. The Proposed Development will seek to enhance the link between the Site and Christ's Hospital rail station as far as is reasonably practicable and deliverable within Highway Land. Whilst the station is unlikely to play a major role in rail-based trips (as it is envisaged Horsham rail station will be the bigger draw), encouraging sustainable transport usage to and from Christ's Hospital rail station is still considered beneficial.

6.3.10. Christ's Hospital rail station is approximately 1.1km west from the site boundary located at the Two Mile Ash Road / Christ's Hospital Road priority junction and therefore is considered to be a suitable distance away for walking and cycling journeys. The existing pedestrian and cycle facilities on Christ's Hospital Road are outlined within Chapter 4 of this TA.

6.3.11. The development will enhance the existing footway provision and reduce the speed of the vehicles currently using Christ's Hospital Road by providing a series of traffic calming measures.

6.3.12. On the initial westbound section of Christ's Hospital Road, only limited changes can be implemented due to the restricted highway width. However, resurfacing works and revisions to the white lining will be carried out. Moving further west, additional traffic calming measures will be introduced, such as the removal of the existing centre line, installation of 30mph repeater signs, application of new coloured road surfacing, and inclusion of edge-of-carriageway markings. These interventions are designed to promote lower vehicle speeds and create road conditions more favourable to cycling.

6.3.13. On the approach to the leisure centre, the existing footway will be widened to at least 2m by reducing the width of the existing verge to 0.5m and the footway will be resurfaced. It is intended that a suitable traffic calming build out will be implemented to allow for the one-way movement on vehicles on the approach to the leisure centre to continue the theme of reducing the vehicular speed. The centre line will be removed to encourage lower speeds up until reaching the village of Christ's Hospital, which by its nature has a narrow carriageway width and existing traffic calming measures.

6.3.14. Two-Mile Ash Road will provide the initial connection to Christ's Hospital Road. As such, it is proposed that additional traffic calming features are introduced to aid in pedestrian movements from access A4 onto Two Mile Ash Road. This will include the introduction of an informal crossing facility with dropped kerbs, tactile paving and reduction in the carriageway width to 3.65m (to encourage slower vehicle speeds). A new 2m footway will be provided on the western side of Two Mile Ash Road up to the vehicular access point.

6.3.15. **Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0106-01** presents the walking and cycling improvements to Christ's Hospital Road. The exact scheme that would be delivered and the associated delivery mechanism is subject to further investigation and discussion with WSCC.

6.3.16. There is also an existing route to Christ's Hospital via Bridleway 1642, which in-turn connects to Bridleway 1662 and intersects the Proposed Development. This route is less desirable due to a limitation over natural surveillance and slightly longer journey times, however, will provide an alternative option that could be upgraded through financial contributions.

6.3.17. Through engagement with the Horsham Cycle Forum, they identified the safety risk of the existing Two Mile Ash Road crossing between Bridleways 1642 and 1662. WSP have therefore considered a potential crossing improvement that looks to make it more obvious that pedestrians and cyclists could be crossing at this location. The proposal is shown in **UK0043490.9681-WSP-XX-XX-DR-TP-0108-01**.

6.3.18. There is a further existing link to Christ's Hospital station from the Site which can be utilised, known as the 'Downs Link'. The Downs Link, as outlined previously, is a long-distance route for walkers, cyclists and horse riders that runs through the southern part of the Site. Similar to the issues raised regarding the 1642 Bridleway route to the station, it is not on the principal desire line for the majority of future occupiers of the Site and the route is not subject to significant natural surveillance. This route would however represent a pleasant and reasonably direct route from the southern sections of the Site. The advantages of both of these routes are that they are existing, established routes that already allow for pedestrian and cyclist use.

6.3.19. The Proposed Development focusses on providing the missing links and contributing towards enhancements to these two PRoWs to remove potential barriers to encourage active travel.

ROUTE TOWARDS HORSHAM PARK & RIDE SITE / GOLF COURSE SITE

6.3.20. Horsham Park & Ride is a strategic public transport hub for journeys into Horsham and the surrounding area that the Proposed Development would be keen to improve connections to, notwithstanding that the majority of the Site will be served by closer buses into Horsham than is offered by the Park & Ride site in any event. The distance from the location of the proposed northern vehicular Site access to Horsham Park & Ride is approximately 600m which takes about 5-10 minutes for those on foot and a couple of minutes for cyclists. Located next to the Park & Ride is the new Golf Course Site which will also include a number of new facilities that the residents of the Proposed Development may want to access.

6.3.21. The northern vehicular access into the Site will be approximately 150m south-west of the A24 Hop Oast roundabout and will be the northern entrance to the Site – this will include LTN1/20 compliant foot / cycle provision. The northern Site access will include appropriate crossing facilities and additional foot/cycle provision will be provided up to the Hop Oast Roundabout.

6.3.22. Between the new access junction and the Hop Oast roundabout, a 3m shared use path will be provided - this is based on the guidance within LTN 1/20, which outlines for short sections between crossings it is preferable to provide an unsegregated shared use path as opposed to a segregated path - as it could be confusing for users.

6.3.23. The current alignment of the A24 Hop Oast roundabout provides no pedestrian or cycle crossing facilities, however WSP have identified an improvement scheme for the Hop Oast roundabout and is presented in Drawing **UK0043490.9681-WSP-XX-XX-DR-TP-0109** which is located in **Annex F**.

6.3.24. This Hop Oast scheme is a key junction improvement scheme that has been identified within the draft Local Plan allocation and an improvement that WSCC will be delivering as part of their wider A24 enhancement plan. The improvement scheme will see the signalisation of each of the approaches and will continue to provide the free-flow left-turn lane from Southwater onto the A24 northbound. The improvements will enhance pedestrian and cycle connectivity with pedestrian / cycle-controlled crossing facilities to be provided on the southern approach and exit of the roundabout. The scheme also includes potential bus priority measures.

6.3.25. North of the A24 Hop Oast roundabout, the Horsham Golf Course development will be delivering a new shared use path between the Hop Oast roundabout and the P&R traffic signal junctions which connect the Site to the P&R facility.

6.3.26. Whilst the sections of Worthing Road further north (i.e. towards Horsham Town Centre) are not considered suitable for walking / cycle upgrades - given a number of constraints set out later in this Chapter – the above scheme would still provide significantly improved connections over the A24 for those wishing to use Worthing Road for cycling and walking trips into Horsham. This has been highlighted within the Transport Assessment of the Horsham Golf Course application that provides improvements where possible for walking and cycling upgrades into Horsham.

ROUTE TOWARDS SOUTHWATER VILLAGE CENTRE

6.3.27. Southwater village centre is broadly located northeast of the Worthing Road / Fairbank Road junction. As outlined earlier within this TA, the village centre accommodates a range of facilities, including a convenience store, a pharmacy, a doctor's surgery and a number of food outlets. The village centre is within a 2km walk / cycle from the majority of the Site. As set out previously, the aspiration is to promote active travel for journeys within 5km.

6.3.28. Worthing Road is considered a key link from the northern part of the Site to Southwater village centre and as such improvements to pedestrian and cyclist connectivity along this corridor have been considered based on the outcomes of the ATE audit. The proposed improvements are between access A2 and Cedar Drive.

6.3.29. North of the priority junction, a new informal crossing is proposed to improve connections between the bus stops on Worthing Road (Warnham Gate) and the secondary school. The crossing will include drop kerbs, tactile paving and a refuse island. Furthermore, it is noted that the indicative phasing plans show that Phase 1 will be accessed via the Worthing Road access junction. A second informal crossing will be provided to the south of access junction, with drop kerbs, tactile paving and a refuge island. This crossing will enhance the accessibility from the existing Southwater village to the local centre and secondary school.

6.3.30. The ability to provide improvements to cycling infrastructure on this section is limited due to the existing width of the Worthing Road corridor, however to improve connectivity there is a possibility the remove centre line markings where appropriate. This is in-line with the principles of Worthing Road as a traffic calmed street to discourage rat running through Southwater – i.e. instead of using the A24.

6.3.31. Pedestrian improvements will be focused on crossings of Worthing Road. It is proposed to provide six crossings on Worthing Road, five of the crossings will be informal - with dropped kerbs and tactile paving provided - and a signalised crossing, the first that will link into an upgraded PRoW (Footpath 1656) on the Site. WSP **UK0043490.9681-WSP-XX-XX-DR-TP-0108-01** the proposed enhancements to Worthing Road.

ROUTE TOWARDS HORSHAM TOWN CENTRE

6.3.32. Horsham Town Centre is seen as a key destination / origin for future users of the Site. This is due to Horsham Town Centre providing various employment opportunities, services and public transport connections to Crawley, Gatwick Airport and London for example.

6.3.33. In terms of the projected number of cyclists travelling off-site, in the AM peak the two-way flow is 23, in the PM peak it is 33 and for the 12-hour period (07:00-19:00) it is 162. This is based on the residential and employment land uses. It has been assumed that all cyclists arriving or departing from the Secondary School will remain within Southwater and as such it is unlikely that these users will utilise this route into Horsham.

6.3.34. As set out at Chapter 2, the Horsham Local Walking and Cycling Infrastructure Plan (LCWIP) was published in October 2020, outlining six key corridors into Horsham Town Centre to focus on enhancing the user experience. Corridor 4 focused on Southwater to Horsham Town Centre, in terms of cycle route considerations on Worthing Road the report states the following:

"There is insufficient highway width to construct a continuous cycle track (or shared-use path) along all parts of Worthing Road in addition to two traffic lanes. The two key pinch points are the sections south of Southwater Primary School and between Horsham Golf and Fitness/ Football Club access and the railway bridge. Unless parts of Worthing Road were made one-way to make space for a cycle track, or through traffic diverted onto other roads. It is considered that an alternative alignment will be required for the cycle route from Southwater to Horsham".

6.3.35. The LCWIP document provides a useful starting point for the assessment of a preferred route from the Site into Horsham. This section reviews the route via Worthing Road and two further potential routes from the Site into Horsham Town Centre - via Two Mile Ash Road and Southwater Street/ Lovers Lane respectively - with all three routes presented on the transport strategy plan set out at Chapter 9 (**Annex G**).

6.3.36. The LCWIP highlights that the most direct route into Horsham would be via Worthing Road. Worthing Road is an arterial route into Horsham from the A24 Hop Oast Roundabout. Worthing Road is a single carriageway road with a single lane of traffic in each direction and a footway primarily on the eastern side of the carriageway. Worthing Road has a two-way flow of 2,913 in the AM peak period (07:00-10:00) and 3,073 in the PM peak period (16:00-19:00). The road is subject to a 40mph speed between the Hop Oast Roundabout and the railway bridge and 30mph from the railway bridge into Horsham Town Centre.

6.3.37. Following discussions with the Horsham cycle forum and other groups / representatives, it is known that competent cyclists already use Worthing Road but is likely to be a barrier to less experienced cyclists without significant improvement.

6.3.38. In order to provide a fully compliant cycle facility on Worthing Road based on LTN 1/20 guidance, segregated cycle lanes on either side of Worthing Road would be required. These cycle facilities would need to be a minimum width of 3m due to the forecast demand. Furthermore, there would need to be a segregation of at least 0.5m from carriageway due to the 40mph speed limit on Worthing Road. This takes the width of any such cycle facility to a minimum of 3.5m, with an additional 2.0m footway for pedestrians, and would therefore require a total minimum 5.5m of space for NMUs. Building such a scheme would require discussion and agreement with a number of different landowners, as sections would be outside of the current highway boundary, in an attempt to provide a betterment for the whole route. There may be the ability to provide some of the 5.5m width on Worthing Road in certain locations, but due to the many pinch points, (land ownership and retaining structures) it would be disjointed and offer no real benefit to new users and as such it is considered preferable to provide no formal cycle facility, as opposed to a disjointed facility, in accordance with LTN 1/20.

Two Mile Ash Road

6.3.39. The LCWIP reviews two further routes towards Horsham Town Centre - these are via Two Mile Ash Road and Southwater Street / Lovers Lane. In terms of Two Mile Ash Road, the road is single carriageway with a single lane of traffic in each direction and some short sections of footways on the eastern side of the carriageway. Two Mile Ash Road has a two-way traffic flow of circa 3,000 vehicles between 07:00-19:00, this is taken from a Department for Transport traffic count. The road is subject to a 30mph speed from Christ's Hospital Road to Tower Hill / Parthing Lane. As with the assessment of Worthing Road, the starting point is to consider whether it would be feasible to provide off-road facilities - but again, due to the lack of available public highway it is not possible to provide an LTN 1/20 scheme along the full length of the route within highway land.

6.3.40. Two Mile Ash Road has the general properties of a 'Quiet Street' in terms of LTN 1/20 guidance - as the road has less than 4,500 AADT and a speed limit of 30mph. The design principles of a 'Quiet Street' would see the removal of the centreline of the carriageway and provision of two 1.5m advisory cycle lanes in each direction, with the general carriageway between the cycle lanes of 5.5m, or a minimum of 4m (i.e. an overall minimum effective carriageway width of 7m).

6.3.41. There are however areas along this route where providing a 7m carriageway is not possible due to land constraints, particularly around residential properties where the highway boundary width is between 5m and 6m. As outlined above, given that it is not possible to provide a full 'Quiet Street', it is considered preferable to not provide any such facility, as opposed to providing a disjointed facility. It would however be possible to improve cycling conditions on Two Mile Ash Road, by a series of traffic calming build outs that could be implemented along Two Mile Ash road. This will allow for one way movement of vehicles alongside a speed limit reduction to 30mph for the whole link. The aim of these measures will be to downgrade Two Mile Ash Road as a route towards Horsham and the A24 and instead provide signage to direct vehicles through the new development roads towards the A24 at Hop Oast Roundabout.

6.3.42. The final connection of this route - from Two Mile Ash Road to Longfield Road - would require an upgrade of the PRoW (1639.1) - which is currently footpath status - up to the bridge over the railway line, which would also require upgrading given that there are no existing cyclist facilities across the bridge. As the PRoW and bridge are outside of the highway boundary, discussions would be required with the respective landowner regarding upgrading the footpath to a bridleway and with Network Rail regarding bridge improvements - potentially providing funding for cycle gutters to be implemented.

6.3.43. A financial contribution could be made towards this LCWIP scheme and is to be discussed further with WSCC.

SOUTHWATER STREET / LOVERS LANE

6.3.44. The third potential route to Horsham town centre is via Southwater Street and Lovers Lane, this is taken from LCWIP routes from Southwater to Horsham. This route also utilises two bridleways accessed from Lovers Lane (1670 and 1672.1). The route would begin at the Southwater Street / Worthing Road junction and would continue to the junction with Lovers Lane. Southwater Street is a single carriageway road with a single lane of traffic in each direction. The road is subject to a 30mph speed limit in the residential area, which increases to 40mph to the west of the A24 overbridge to Lovers Lane. Based on the traffic flows taken from a September 2025 traffic survey the current two-way AADT flow on Southwater Street is approximately 1,900.

6.3.45. As with Two Mile Ash Road, Southwater Street has the general properties of a 'Quiet Street' in terms of LTN 1/20 guidance on the western section of the route within the residential area of Southwater, there is opportunity to create a 'Quiet Street' on Southwater Street, this in based comments received back from WSCC at the beginning of February 2026. The design principles of a 'Quiet Street' are outlined above.

6.3.46. A financial contribution could be made towards this LCWIP scheme and is to be discussed further with WSCC.

SUMMARY OF ROUTES TO HORSHAM TOWN CENTRE

6.3.47. As outlined above there are three potential cycle routes towards Horsham Town Centre. The Worthing Road route has been discounted as a potential option for improvement due to the lack of highway land available to provide LTN 1/20 compliant infrastructure.

6.3.48. Two Mile Ash Road would provide the most direct route to Horsham Town Centre. The infrastructure would be compliant with LTN 1/20 for a “Quiet Street’” in terms of the speed limit of the 30mph and the low vehicular flow of 3,307 (07:00-19:00). However, the route does have issues north of Two Mile Ash Road to Longfield Road, where the route utilises an existing footpath which would require upgrading to a bridleway. It is not under the Applicant’s control to upgrade this PRoW to a bridleway however, given that the footpath passes through private land, which is not controlled by the Applicant (or WSCC).

6.3.49. Again, it should be noted that whilst these potential schemes have been subject to initial discussion and engagement with WSCC, the exact scheme(s) that would be delivered and the associated delivery mechanism is subject to further investigation, including an understanding of potential integration with the wider NMU improvement schemes being undertaken by WSCC and other strategic sites in this area - notably the continued work WSCC are undertaking on the LCWIP.

7. PUBLIC TRANSPORT STRATEGY

7.1. INTRODUCTION

7.1.1. This section of the TA looks at the Public Transport Strategy that has been developed for this planning application. Details of the existing bus and rail network in the vicinity of the Site are set out at Chapter 3.

7.2. HORSHAM GOLF CLUB DEVELOPMENT

7.2.1. The development of the golf club site, to the north of the Hop Oast roundabout and opposite the Horsham Park and Ride site, is of significant relevance to the local bus network and this development. In the Planning Inspectorate's Appeal Decision for that development, it was noted that "*the P&R would be within convenient walking distance for all future residents*" of that site. Accordingly, "*The s106 agreement would secure a financial contribution of £750,000 which would be spent on improving the frequency of the 98 service that operates between Southwater and Horsham via the P&R, to every 15 minutes. These improvements would benefit existing residents of Horsham, Southwater as well as future residents of the appeal site. In light of the proximity of the P&R site and the service enhancements set out above, I* [the planning appeal decision-maker] *consider that future residents of the development would have excellent access to public transport consistent with NPPF paragraphs 110 and 117*." As such, this Public Transport Strategy takes its lead from this recent, nearby planning approval not least because the golf club development is anticipated to come forward before the Site.

7.3. NEW BUS SERVICE TO CHRIST'S HOSPITAL

7.3.1. The feasibility of providing a new bus service as part of the Proposed Development between the Site / Southwater village centre and Christ's Hospital was investigated as part of the planning application in 2022. While this would enhance the accessibility credentials of Christ's Hospital, including the rail station, by non-car modes, the investigation of alternative scenarios demonstrated that the annual net cost (i.e. operating cost exceeding passenger revenue) would amount to between £70,000 and £100,000 per annum and in effect would amount to a subsidy 'in perpetuity' as the service is unlikely to ever break even, which is logical given the limited set of journeys which would be catered for by such a bespoke service.

7.3.2. On the basis of the above it is considered that a new bus service to Christ's Hospital station is unlikely to be viable and as such it is considered appropriate to focus upon improvements to bus service provision to Horsham and other destinations served by direct bus services, particularly given that Horsham rail station offers a greater range of rail services, and at greater frequencies and shorter journey times, than equivalent rail services from Christ's Hospital. This is discussed below.

7.4. ENHANCEMENT OF SERVICES TO HORSHAM

7.4.1. The feasibility of providing a new bus service between the Site and Horsham was also investigated as part of the planning application in 2022.

7.4.2. As confirmed through further discussions with Metrobus regarding the Site, any new bus service would effectively be in competition with the existing long-established and commercially-viable services (23 and 98), which provide direct access to Horsham town centre, including the rail station. Therefore, as part of the planning application in 2022, it was intended to upgrade the 98 service to a frequency of every 15 minutes during the daytimes (from current every 20 minutes), as this increased level of provision was considered appropriate at the time.

7.4.3. As noted above, the Horsham Golf Club development will increase the frequency of service 98 to every 15 minutes (under the S106 agreement) which will provide significant benefits to all passengers on the line of route, including future residents and users of this Site. As a 15-minute frequency is relatively high for such an interurban service and delivers what was previously considered acceptable for this Site, further enhancement of that service is not considered to be necessary.

7.4.4. Nevertheless, it is important that this development supports the enhancement of sustainable transport options, by means of bus service access, and so to this end, it is considered that concentrating improvements on the parallel existing 23 bus route, which also passes sufficiently close to the proposed development, would be the best overall strategy of improving existing public transport provision on a financially sustainable basis. This approach also embeds the connectivity of the development in the rest of the bus network, avoiding a scenario where any new service would be solely reliant on the development trips for its existence. As Horsham Road is also served by service 98, a greater frequency of service and range of destinations is available from the same bus stops, making the overall promotion of services more straightforward. The reasonableness of this approached is illustrated by the Planning Inspectorate's Appeal decision regarding the golf club site as the concept of crossing Worthing Road was accepted as not being a barrier to bus use e.g. "*In this case, the reality is that most residents wanting to go into Horsham by sustainable travel modes would simply cross the road and catch a bus from the P&R.*"

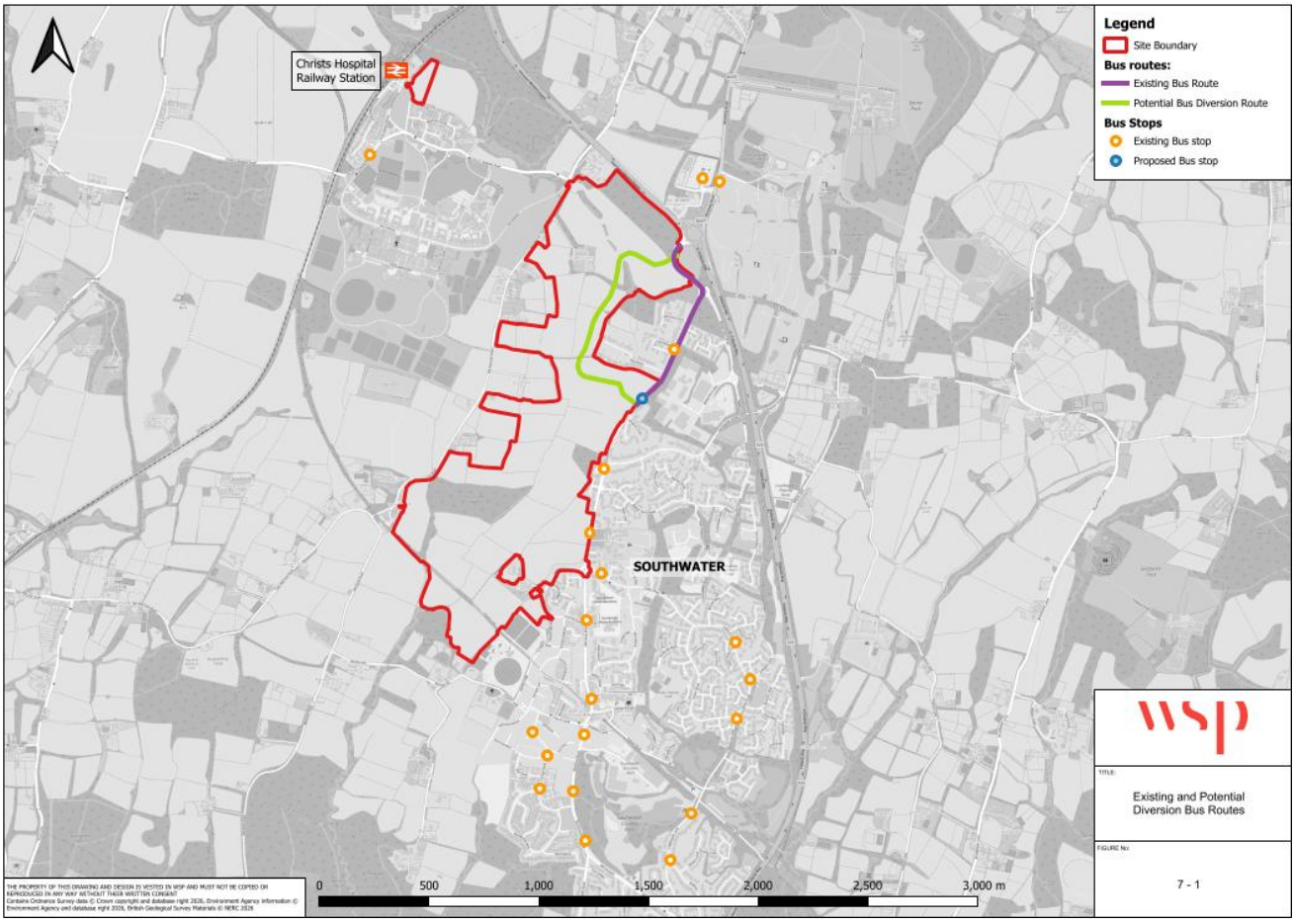
7.4.5. On the section of route between Horsham and Worthing, service 23 currently operates mainly every 60 minutes on Mondays to Saturdays during daytimes, although in some hours there is a service every 30 minutes through Southwater and further journeys which operate between Horsham and Crawley. From initial discussions with Metrobus it is envisaged that a comparable contribution to that secured through the S106 for the Horsham Golf Club development would enable peak time journeys to be added to the service 23 timetable which will operate on a 15 minute frequency. These would be timed to support commuting trips and the additional vehicle resource would also enable a more consistent level of service to be provided during off-peak daytime hours, to improve the simplicity and attractiveness of the service through Southwater.

7.4.6. When combined with the enhanced service 98, this would effectively result in a 'turn up and go' bus service into Horsham at peak times. As set out at Section 3, it is significant that the 23 service also calls at Horsham rail station – with the current typical journey time from Southwater to Horsham rail station of 20 – 25 minutes – thereby further enhancing the accessibility credentials of the Site by rail. Again, it is particularly noteworthy that Horsham rail station offers a range of rail services, and at greater frequencies and shorter journey times, than equivalent rail services from Christ's Hospital and as such it is considered that the optimum solution is focussing upon bus service improvements to Horsham rail station.

7.4.7. Alongside the enhancements to the frequency of the 23 service, some journeys, particularly at school arrival and departure times, could also be diverted through the northern part of the Site – as shown at Figure 7-1 – in order to further enhance the accessibility of these services for a key cohort of future users of the Site. New bus stops would then be provided on this part of the primary road to provide direct access to the employment land and secondary school.

7.4.8. It is also noteworthy that the identified signalisation scheme for the Hop Oast roundabout includes the option of bus priority measures, further enhancing the bus connectivity into Horsham from Southwater. It is considered that these bus priority measures would (at least) offset any journey time impact resulting from the re-routeing of any journeys on the 23 service through the Site. The impact on existing residents will be minimal as the number properties on this section of Worthing Road is low.

Figure 7-1 – Diverted Bus Services through Northern Part of the Site



7.5. SUMMARY

7.5.1. In summary, based on the above analysis it is considered that the most optimum solution for maximising the accessibility credentials of the Site by public transport is through a contribution to enhancements to the existing 23 service to Horsham, including increases to the frequency of the service along with the potential for re-routing of services at school times through the northern part of the Site.

7.5.2. In the event that the Golf Course development, and its public transport enhancement, does not come forward, a mechanism will be required to enable the funding for this development to be re-purposed to the best advantage of the public transport network at that time, which could still be service 98 but may include other options, including service 23.

8. TRIP GENERATION

8.1. INTRODUCTION

8.1.1. This section sets out the vehicular trip generation for the proposed mixed-use development at Land Northwest of Southwater. The assessment considers the main land uses within the development which includes residential, employment and schools and has been prepared with reference to the Transport Scoping Note (August 2025) and the Transport Scoping Note Addendum (October 2025).

8.1.2. The trip generation tables presented in the subsequent section supersedes those in the Transport Scoping Note, in line with the Transport scoping note addendum, reflecting updates agreed with West Sussex County Council (WSCC) as the Highway Authority, including the final set of assumptions considered.

8.2. RESIDENTIAL

8.2.1. Trip rates for the residential element have been derived by way of an interrogation of the TRICS Database (Version 8.25.6). The 'Houses, Privately Owned' section of the database was reviewed, with the following site characteristics selected:

- All England sites (excluding Greater London);
- Dwelling range of between 200 and 1,500 dwellings located in Suburban and Edge of Town
- locations; and
- Sites that included, or were in close proximity to, notable retail, employment and / or leisure facilities were manually filtered out - given that the effect of the presence of these facilities on the subject site has been accounted for separately, as set out later in this note.

8.2.2. The rates that were derived from the search are provided in the following table, along with the volume of trips that would be generated by 1,000 homes. The resulting AM & PM peak-hour trip rates and generation is tabulated below:

Table 8-1 Residential Vehicular Trip Rates and Generation

Period	Trip Rates (per home)			Trip Generation (1,000 homes)		
	Arrival	Departure	Total	Arrival	Departure	Total
AM Peak	0.143	0.375	0.518	143	375	518
PM Peak	0.345	0.150	0.495	345	150	495

8.2.3. Based on the above, it is envisaged that 1,000 dwellings could generate in the order of 518 two-way vehicle movements during the AM peak and 495 two-way vehicle movements during the PM peak.

8.3. SPECIALIST ACCOMMODATION

8.3.1. Trip rates for the specialist element have been derived by way of an interrogation of the TRICS Database (Version 8.25.11). The 'Health, Care Home' section of the database was reviewed, with the following site characteristics selected:

- All England sites (excluding Greater London)

- Dwelling range of between 16 and 120 dwellings located in Suburban and Edge of Town locations

8.3.2. The rates that were derived from the search are provided in the following table, along with the volume of trips that would be generated by the proposed C2 use class specialist accommodation (for the purposes of this TA, this is assumed to comprise an 80-bed care home). The resulting AM & PM peak-hour trip rates and generation is tabulated below:

Table 8-2 - Care home Vehicular Trip Rates and Generation

Period	Trip Rates (per home)			Trip Generation (80 homes)		
	Arrival	Departure	Total	Arrival	Departure	Total
AM Peak	0.096	0.06	0.156	8	5	12
PM Peak	0.058	0.12	0.178	5	10	14

8.3.3. Based on the above, it is envisaged that an 80 room care home could generate in the order of 12 two-way vehicle movements during the AM peak and 14 two-way vehicle movements during the PM peak.

8.4. EMPLOYMENT

8.4.1. The employment site would be market-led, with parcel distribution identified as a potential option. The vision is not to be office space-led, although a proportion of office or research and development use has been allowed for should it be required. Accordingly, an assessment of TRICS data has been undertaken for a Parcel Distribution Centre land use element of the employment land.

8.4.2. The employment land use assumptions have therefore been updated from the original 50:50 split contained within the 2022 planning application between Industrial Estate and Business Park uses to the following revised mix, as agreed in the Addendum:

- 25% Parcel Distribution Centre (4,250 sqm)
- 25% Industrial Estate (4,250 sqm)
- 50% Business Park (8,500 sqm)

Total: 17,000 sqm GFA

8.4.3. The assessment is based on the 17,000 sqm for the employment site even though it is noted that the development proposals included for 17,500sqm of employment. This slight change between employment trip generation will account for six and four two-way trips in the AM and PM peak, respectively.

PARCEL DELIVERY

8.4.4. A TRICS search under the “Employment – Parcel Distribution Centres” category was undertaken using surveys from comparable UK edge-of-town and industrial locations. The resulting AM & PM peak-hour trip rates and generation is tabulated below:

Table 8-3 Vehicular Employment Trip Rates and Generation (Parcel Distribution Centres) 4,250sqm

Period	Trip Rates (per 100sqm)			Trip Generation (4,250sqm)		
	Arrival	Departure	Total	Arrival	Departure	Total
AM Peak	0.280	0.784	1.064	12	33	45
PM Peak	0.373	0.411	0.784	16	17	33

INDUSTRIAL ESTATE

8.4.5. The Industrial Estate trip rates from the Transport Scoping Note have been applied to a floor area of 4,250 sqm, reduced from 7,875 sqm. The resulting trip generation is shown in Table below.

Table 8-4 Vehicular Employment Trip Rates and Generation (Industrial) 4,250sqm

Period	Trip Rates (per 100sqm)			Trip Generation (4,250sqm)		
	Arrival	Departure	Total	Arrival	Departure	Total
AM Peak	0.365	0.158	0.523	16	7	22
PM Peak	0.127	0.309	0.436	5	13	19

8.4.6. The Parcel Distribution Centre and the Industrial estate elements is forecast to generate 67 two-way movements in the AM peak and 52 two-way movements in the PM peak.

BUSINESS PARK

8.4.7. The business park element increases from the Transport Scoping Note, applying TRICS “Business Park” rates to 8,500 sqm GFA.

Table 8-5 Vehicular Employment Trip Rates and Generation (Business Park) 8,500sqm

Period	Trip Rates (per 100sqm)			Trip Generation (8,500sqm)		
	Arrival	Departure	Total	Arrival	Departure	Total
AM Peak	1.330	0.226	1.556	113	19	132
PM Peak	0.273	0.935	1.208	23	79	103

TOTAL EMPLOYMENT

8.4.8. Combining the above components gives the total employment trip generation for 17,000 sqm GFA.

Table 8-6 Vehicular Trip Generation – Total Employment Use (17,000sqm)

Period	Total Trip Generation – 17,000 sqm		
	Arrival	Departure	Total
AM Peak	140	59	200
PM Peak	44	110	155

8.5. SECONDARY SCHOOL

8.5.1. The Secondary school will be assessed as an 8-form entry (FE) facility, in line with discussions and agreement with West Sussex County Council (WSCC) as the Education Authority.

8.5.2. This provides a robust basis for assessment, ensuring that the Transport Assessment captures the potential worst-case scenario

8.5.3. Trip rates have been derived from the TRICS database (v8.25.6) under the "Education – Secondary" category, focusing on suburban and edge-of-town locations. The resulting AM & PM peak-hour trip rates and generation is tabulated below:

Table 8-7 Vehicular Secondary School Trip Rates and Generation (900 pupils)

Period	Trip Rates (per pupil)			Trip Generation – 900 pupils		
	Arrival	Departure	Total	Arrival	Departure	Total
AM Peak	0.164	0.133	0.297	148	120	267
PM Peak	0.026	0.028	0.054	23	25	49

8.6. RESIDENTIAL TRIPS

TRIP PURPOSE

8.6.1. The trips generated by the residential element of the proposals have been broken down by journey purpose in order to project the likely distribution of these trips more accurately. To this end, the National Trip End Model (NTEM) has been reviewed by way of the TEMPro database 8.2 in terms of journey purposes by mode amongst existing residents in the Horsham 009 Middle Super Output Area (MSOA), as projected in the future assessment year of 2038.

8.6.2. The TEMPro outputs are included at Appendix E whilst the subsequent residential journey purpose (all modes) for the AM and PM peak periods is shown in **Table 8-8** below. This is based on a total sample size of 6,565 and 7,101 existing residential trips during the AM and PM peak periods respectively.

Table 8-8 - Journey Purpose (All Modes) – Home Based Trips in Horsham 009 Middle Super Output Area (MSOA)

Journey Purpose (All Modes)	AM Peak Period (0700-1000)	PM Peak Period (1600-1900)
Work	43.6%	34.6%
Education	26.4%	6.8%
Shopping	16.4%	24.5%
Leisure/ Other	13.5%	34.1%
Total	100%	100%

8.6.3. It is apparent that the most common journey purpose during each of the peak periods is for work. The breakdown of journey purpose amongst car drivers only is presented in **Table 8-9**. This is based on a total sample size of 3,229 and 3,736 residential car driver trips during the AM and PM peak periods respectively.

Table 8-9 - Journey Purpose (Car Drivers Only) – Home Based Trips in Horsham 009 Middle Super Output Area (MSOA)

Journey Purpose (All Modes)	AM Peak Period (0700-1000)	PM Peak Period (1600-1900)
Work	61.7%	45.0%
Education	9.6%	4.5%
Shopping	16.5%	23.1%
Leisure/ Other	12.2%	28.5%
Total	100%	100%

8.6.4. On the basis of the above it is apparent that the majority (61.7%) of AM peak period car driver trips are for work purposes with the majority (45%) of PM peak period trips also for this purpose.

8.6.5. The breakdown in journey purpose amongst car drivers (**Table 8-8**), has been applied to the projected peak hour vehicular trips amongst the 1,000 proposed dwellings at the Site (**Table 8-1**). The subsequent projected number of vehicular trips by purpose is shown in **Table 8-10** below.

8.6.6. For example, a journey purpose of 61.7% for the 'work' purpose in the AM peak equates to 231 of the total AM departures trips of 375. As presented in **Table 8-10**.

Table 8-10 - Distribution of Residential Work Purpose Vehicular Trips – 1,000 Dwellings

	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Work	88	231	320	155	68	223
Education	14	36	50	12	5	17
Shopping	24	62	86	80	34	114
Leisure/ Other	17	46	63	98	43	141
Total	143	375	518	345	150	495

8.6.7. It is apparent that of the 518 two-way AM peak hour residential vehicular trips, 320 would be for work purposes, 50 would be for education purposes, 86 would be for shopping purposes and 63 would be for leisure / other purposes.

8.6.8. Of the 495 two-way PM peak hour residential vehicular trips, 223 would be for work purposes, 17 would be for education purposes, 114 would be for shopping purposes and 141 would be for leisure / other purposes. The distribution of the above residential trips by each respective journey purpose is set out below.

8.7. TRIP DISTRIBUTION – EMPLOYMENT TRIPS

8.7.1. In respect to the trips associated with the approximate 17,000 sqm of employment floor space at the Site, these trips have been distributed based on the Horsham Transport Model. This is deemed an acceptable approach and will take account of the possible redistribution of traffic on the network.

8.7.2. The Transport Scoping Note (August 2025) had an internalisation factor of 10% for trips between the employment and residential element of the development. **Table 8-11** and **Table 8-12** below represent the employment and residential work purpose vehicular trips splitting between External and Internal.

Table 8-11 Distribution of Employment Vehicular Trips – 17,000 sqm GFA

External/ Internal	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
	Arr.	Dep.	Two-Way	%	Arr.	Dep.	Two-Way	%
External	126	53	180	90	40	99	139	90
Internal	14	6	20	10	4	11	15	10

Table 8-12 Distribution of Residential Work Purpose Vehicular Trips – 1,000 Dwellings

External/ Internal	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
	Arr.	Dep.	Two-Way	%	Arr.	Dep.	Two-Way	%
External	82	217	300	94	144	64	207	94
Internal	6	14	20	6	11	4	15	6

8.7.3. The calculations show that the 10% employment internalisation equates to approximately 6% of residential trips.

8.8. TRIP DISTRIBUTION – RESIDENTIAL SHOPPING TRIPS

8.8.1. In respect to the residential vehicular trips for the purposes of shopping, given the various retail facilities that would be provided on the Site, for the purposes of this assessment and agreed with WSCC, it is assumed that 25% of these trips would be internal while the remaining 75% would be equally distributed between Lintot Square (25%) the centre of Horsham (25%) and Broadbridge Heath (25%).

8.8.2. The application of 25% of the shopping trips as internal is considered appropriate given that there will be a retail centre provided on the Site. It is noteworthy that peak hour trips to / from shopping facilities are often undertaken as a pass-by trip that is occurring in any event (i.e. as part of wider trip to / from work for example). It is unlikely that an individual would undertake a primary trip to a shop during the highway network peak hours.

8.8.3. For the purposes of this assessment, it is assumed that only the trips to Horsham and Broadbridge Heath may be discernible on the highway network, with the trips to Lintot Square (and the internal trips) being undertaken as a pass-by trip or being undertaken on foot / cycle in-practice.

Table 8-13 Location of Residential Shopping Purpose Vehicular Trips – 1,000 Dwellings

Destination	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
	Arr.	Dep.	Two-Way	%	Arr.	Dep.	Two-Way	%
Horsham Town Centre	6	15	21	25%	20	9	29	25%
Broadbridge Heath	6	15	21	25%	20	9	29	25%
Internal/Lintot Square (Walking and Cycling)	12	31	43	50%	40	17	57	50%
Total	24	62	86	100%	80	35	115	100%

8.9. TRIP DISTRIBUTION – RESIDENTIAL LEISURE / OTHER PURPOSE VEHICULAR TRIPS

8.9.1. Following a discussion with WSCC it was agreed that 25% of leisure trips would be classified as internal/ Christ's Hospital village with the remaining trips split equally to Horsham Town Centre and Broadbridge Health. Table below presents leisure trip distribution.

Table 8-14 Distribution of Residential Leisure/Other purpose Vehicular Trips-1,000 Dwellings

Destination	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
	Arr.	Dep.	Two-Way	%	Arr.	Dep.	Two-Way	%
Horsham Town Centre	6	17	24	37.5%	37	16	53	37.5%
Broadbridge Heath	6	17	24	37.5%	37	16	53	37.5%
Internal/Christ's Hospital (Walking and cycling)	4	12	16	25%	25	11	35	25%
Total	17	46	63	100%	98	43	141	100%

8.9.2. The final distribution of residential vehicular trips (All purposes) has been tabulated below:

Table 8-15 Residential Vehicular trips (All purpose)-1000 dwellings

Destination	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
	Arr.	Dep.	Two-Way	%	Arr.	Dep.	Two-Way	%
External (Work Trips Only) – to be distributed by the traffic model	82	217	300	58%	144	64	207	42%
Horsham Town Centre (Non-Work Trips)	12	32	45	9%	57	25	82	17%
Broadbridge Heath (Non-Work Trips)	12	32	45	9%	57	25	82	17%
Internal / Lintot Square / Christ's Hospital (Walking and Cycling)	36	93	129	25%	88	37	124	25%
Total	143	374	518		345	151	495	

8.10. TRIP DISTRIBUTION-SECONDARY SCHOOL VEHICULAR TRIPS

8.10.1. It should also be noted that WSCC education department have advised that in the order of 525 children currently travel from Southwater into existing Horsham Schools but in future would likely attend the proposed secondary school on site. As such it could also be appropriate to consider a reduction in some existing baseline vehicle trips on some parts of the highway network, given that some of these trips relate to existing secondary school age pupils who currently are required to travel further afield to go to school. The provision of the new secondary school at the Site will therefore reduce vehicular mileage on the roads into Horsham amongst these existing pupils –albeit it is understood that the majority of these pupils currently travel by bus. Again however, for robustness no allowance for potential reductions in existing school related trips on the transport network has been made in the assessments herein.

8.10.2. Based on the information above, of the trips generated by the new secondary school, 93.6% in the AM peak hours and 87.8% in the PM peak hours has been allocated as internal (existing village or new development), as shown at **Table 8-16**.

8.10.3. Further, following the recent planning approval of the Horsham Golf Course application approximately 1km to the north-east from the Site, it was agreed that the new school would likely cater for new students residing in this location.

8.10.4. Based on School Characteristics data in West Sussex for 2024/25, there are 131,860 pupils in primary school, secondary and higher education (16-17 years old). This broken down, indicates that 63,883 pupils are in primary school, 51,334 pupils are going in secondary schools and 16,643 pupils are in higher education (16-17 years old). Based the details outlined above it has been calculated that 39% of school goers in West Sussex go to a secondary school.

8.10.5. Combing the education trips associated with the Horsham Golf Course application, within Tables 3-1 and 5-3 of their Transport Assessment (page 56) and the 39% of secondary school pupils, the golf course would distribute 6.4% and 12.2% of vehicle school trips to the new secondary school on the Proposed Development in the AM and PM peak respectively as shown in Table 8-16.

Table 8-16 Distribution of Secondary School Vehicular trips - 900 Pupils

Destination	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
	Arr.	Dep.	Two-Way	%	Arr.	Dep.	Two-Way	%
Horsham Golf Course	12	5	17	6.4	2	4	6	12.2
Internal (existing village and Proposed Development)	136	115	250	93.6	21	21	43	87.8
Total	148	120	267	100	23	25	49	100

8.10.6. It is anticipated that the proposed secondary school would generate 267 AM Peak two-way vehicle movements and 49 PM Peak two-way vehicle movements. In practice, the majority trips may be subject to a modal shift to walking / cycling and if not, they would likely be pass-by trips and associated with another form of trip purpose. It is also worth noting that in the AM Peak, the majority of trips departing during that period will have also entered during the same period. Again, a high proportion of these trips are likely to be linked-diverted trips which would otherwise already be on the highway network, e.g. a parent who drives to work and diverts slightly from their normal journey to drop their child off at school before rejoining their normal route to work.

8.10.7. The secondary school trips associated with Horsham Golf Course would currently go to Tanbridge House School, as the walking time is approximately 45-60 minutes it is unlikely that this journey will be undertaken on foot. As such majority of students would be driven to and from the school as these trips would now be to the proposed new secondary school. This would equate to 17 two-way trips in the AM peak and six trips in the PM peak being removed on the A24 north of Hop Oast Roundabout. This reduction, alongside the likely internalisation of existing secondary school movements has not been removed from the assessment for robustness, this will also cover the potential for staff movements to the Site.

8.11. TOTAL DISTRIBUTION OF VEHICULAR TRIPS – ALL SITE USES COMBINED

8.11.1. **Table 8-17** below represents the total distribution of vehicular trips for all site uses combined

Table 8-17 Total Distribution of Vehicular Trips- All Site uses Combined

Destination	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
	Arr.	Dep.	Two-Way	%	Arr.	Dep.	Two-Way	%
External (Work trip departures)	82	217	300	52%	144	64	207	41%
External (Work trips arrivals)	126	53	180	31%	40	99	139	27%
Horsham town Centre (non-work trips)	16	35	51	9%	59	30	89	18%
Broadbridge health (Non work trips)	16	35	51	9%	59	30	89	18%
Horsham golf course	12	5	17	3%	2	4	6	1%
Total	252	345	599		304	227	530	

8.12. TRANSPORT VISION

8.12.1. The development will be a mix-use scheme which encompasses a series of land uses within the scheme. The benefits the scheme provides by providing such varied land use means the need to travel off-site to key services is significantly reduced. As outlined in **Chapter 5, 6** and **7** the key transport-related benefits that the scheme will bring forward:

- **Accessibility** – residents of Southwater will be able to utilise the new primary and secondary school and a second local centre which will give residents access to convenience store alongside other amenities.
- **Southwater Amenities** – residents from the Site are able to access the amenities within a maximum of a 15–20-minute walk, these facilities include a GP, a convenience store, pub and a number of cafes.
- **Public Transport** – Further develop the bus services between Worthing and Crawley by enhancing the frequency of 23 bus service and this will complement the Horsham Golf Course application which will enhance the frequency of the 98-bus service between Southwater and Horsham.

- **Sustainability** - The Site will provide a local centre providing a range of facilities and the new primary and secondary school which will be accessible by the walking and cycling routes provided throughout the Site, reducing the need to travel off-site for day to day activities
- **Enhancements** – The Site will improve the PROWs which pass through the development by improving way-finding and surfacing.

8.12.2. The measures outlined above detail why a vision led vehicular trip generation is key to assessing this scheme accurately. The Vision Led Vehicular Trip Generation will deliver a 10% reduction in External work trips to and from the Site, which is seen as a conservative estimate due to the significant enhancement to Public Transport services into Horsham which is a key connection to access wider services. The remaining vehicular trips will remain at the same level presented in **Table 8-17**. This has been agreed in principle with WSCC.

8.13. VISION LED VEHICULAR TRIP GENERATION

8.13.1. The forecast vision led trip generation is shown in **Table 8-18** below. The forecasted external two-way vehicular movements during the AM and PM peak hours are 528 and 474 respectively.

Table 8-18 Vision Led Total Distribution of Vehicular Trips in the AM and PM Peak

Destination	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
	Arr.	Dep.	Two-Way	%	Arr.	Dep.	Two-Way	%
External (Work trip departures)	74	195	270	49%	130	58	186	38%
External (Work trips arrivals)	113	48	162	29%	36	89	125	25%
Horsham town Centre (non-work trips)	16	35	51	9%	59	30	89	18%
Broadbridge health (Non work trips)	16	35	51	9%	59	30	89	18%
Horsham golf course	12	5	17	3%	2	4	6	1%
Total	231	318	551		286	211	495	

8.14. PUBLIC TRANSPORT TRIP GENERATION

8.14.1. In order to establish the forecast level of public transport trips associated with the Proposed Development a review has been undertaken of the total vehicular trip generation referenced earlier in this Chapter and the 2011 journey to work mode share information presented in **Table 3-4**.

8.14.2. It should be noted that these values relate to the residential and employment elements of the Proposed Development only. This is due to the shopping and leisure/ other trips being deemed more likely to be undertaken by the private car than public transport unless the destination is within a walking or cycling distance.

8.14.3. **Table 8-19** below shows Residential and Employment public transport trip generation in AM and PM peak hours.

Table 8-19 - Public Transport Trip Generation

Land Use	Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
		Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Residential	Rail	10	26	36	24	11	35
	Bus	6	16	22	15	7	21
	Total	**16**	**42**	**58**	**39**	**18**	**56**
Employment	Rail	10	4	14	3	8	11
	Bus	6	3	9	2	5	7
	Total	**16**	**7**	**23**	**5**	**13**	**18**
Overall		**32**	**49**	**82**	**44**	**30**	**74**

8.14.4. The Public Transport movements present **Table 8-19,** details that the residential element forecasts 58 two-way in the morning and 56 afternoon peak hours person movements by public transport (bus and rail). Whilst the employment element of the development forecasts 23 two-way in the AM peak and 18 in the PM peak.

8.14.5. The Transport Vision as outlined in Section 8.11 details how the Site will encourage usage in Public Transport trips, via increasing bus service provision into Horsham and other local employment areas.

8.14.6. Taking account of the Transport Vision, which is detailed in **Table 8-18, Table 8-20** below presents an updated Public Transport trip generation vision that aims to achieve a 10% modal shift from the residential and employment work trip elements from private motor vehicles onto Public Transport.

Table 8-20 – Vision Led Public Transport Trip Generation

Land Use	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arr.	Dep.	Two-Way	Arr.	Dep.	Two-Way
Residential	24	65	89	53	23	77
Employment	29	12	41	9	23	32
Total	53	76	130	62	46	109

8.14.7. **Table 8-20** forecasts a total of 130 two-way public transport passengers in the AM peak and 109 two-way public transport passengers in the PM peak.

9. DEVELOPMENT IMPACT

9.1. INTRODUCTION

9.1.1. As set out within Chapter 8 of this TA, WSP have submitted and agreed in principle the trip generation for the proposed development covering the different land uses on the Site. It was agreed with WSCC that the impacts of the development both for establishing baseline traffic flows and for distributing the development-related trips—would be to use Horsham District Council's Horsham Transport Study Model (HTSM), a SATURN-based strategic highway model developed with a 2019 baseline.

9.1.2. Given the changes in travel behaviour and traffic patterns following the COVID-19 pandemic, WSCC and WSP agreed that the 2019 HTSM would be rebased to 2024. This rebasing process involved applying proportionate, transparent adjustments to the 2024 observed demand data to create a robust and representative new base-year model. The results of the assessment confirming the continued suitability of the HTSM model as a valid tool for generating an updated 2036+ forecast year are presented in the Technical Note "LAND NORTH WEST OF SOUTHWATER – Pre-COVID and Post-COVID Traffic Flow Comparisons," WSP, Jan 2026. This updated forecast serves as the new base year for scheme forecasting, incorporating TEMPro 8.0 and NRTP factors to represent normal growth without COVID-19 impacts, this document is included in **Annex H**.

9.1.3. This chapter outlines the modelling scenarios used to assess the impacts of the Proposed Development and identifies any mitigation measures required to support its delivery.

9.2. TRAFFIC MODEL

2019 EXISTING MODEL

9.2.1. The Horsham Transport Study Model (HTSM) was originally developed by Stantec using the SATURN strategic highway modelling software. The model was built using SATURN version 11.3.12.

9.2.2. The HTSM Base Year Model represents traffic conditions in 2019 and includes two peak-hour time periods:

- AM Peak hour (0800-0900)
- PM Peak hour (1700-1800)

9.2.3. The following vehicle types included within the model are:

- Car;
- Light Goods Vehicles (LGV); and
- Heavy Goods Vehicles (HGV).

9.2.4. Car trips are further disaggregated by journey purpose, resulting in five highway user classes within the mode:

- Car Commute;
- Car Other;
- Car Employer Business;
- LGV; and
- HGV

9.2.5. This structure enables the model to represent variations in travel behaviour, routeing, and sensitivity to congestion across different user groups, supporting a more robust assessment of network performance under both baseline and future-year scenarios.

UPDATED MODELS

9.2.6. A series of forecasting scenarios have been developed to assess the impact of the Proposed Development for the purposes of this TA. The following forecast scenarios have been produced:

- 2024 Base Year Model
- 2036 Do Minimum;
- 2036 Do Something (Vision)

2024 BASE YEAR MODEL;

9.2.7. The 2019 calibrated base model has been adopted as the starting point and updated to reflect 2024 traffic conditions. As part of this process:

- COVID-19 adjustment factors were applied across all car trip purposes and time periods to account for changes in travel behaviour and overall travel demand.
- LGV and HGV growth factors for the period 2019–2024 were derived from the National Road Traffic Projections (NRTP 2022) dataset.
- Proportionate and transparent adjustments were made to reflect expected 2024 demand levels, ensuring that the rebased model accurately represents current network conditions.

9.2.8. The updated 2024 Base Year Model provides a robust and reliable baseline from which all future forecasting and impact assessment activities will be undertaken.

9.2.9. Importantly, the established model structure—including time periods, user classes, and detailed sub-classifications—has been preserved. Maintaining this consistency supports comparability with previous modelling exercises and enables meaningful analysis of changes over time.

9.2.10. The updated model has been developed using SATURN version 11.4.07

2036 Do Minimum :

9.2.11. The 2036 Do Minimum represents future traffic conditions assuming no development beyond what is already committed. This scenario includes:

- All committed development within Horsham District, including sites allocated in the adopted Local Plan and neighbourhood plans made before May 2021; and
- All committed development within neighbouring authorities.

9.2.12. To provide a more realistic representation of future conditions in neighbouring authority areas, an additional level of growth has been applied. This growth was derived from the Department for Transport's Trip End Model Presentation Program (TEMPro) version 8.0, ensuring forecast demand appropriately reflects expected development trajectories up to 2036. In addition, car traffic forecasts were adjusted for fuel-cost and income-growth factors, consistent with national guidance on long-term travel demand trends.

9.2.13. Growth in Light Goods Vehicles (LGVs) and Heavy Goods Vehicles (HGVs) between 2024 and 2036 was applied using factors derived from the National Road Traffic Projections (NRTP 2022), extrapolated to the 2036 forecast year.

9.2.14. This approach ensures that the 2036 Do Minimum reflects a realistic and policy-compliant forecast of future travel demand, providing a robust basis for assessing the incremental effects of the Proposed Development.

Table 9-1 – Committed & Adopted Local Plan Developments in Horsham neighbouring local authorities

No	Local Authority	Residential Dwellings	Employment
1	Arun	3089	0
2	Mid Sussex	10232	0
3	Tandridge	63	0
4	Crawley	3753	0
5	Horsham	7441	4413
	Total	24578	4413

9.2.15. The list of Committed and Adopted Local Plan Developments within West Sussex and relates to the specific housing and employment developments that were explicitly modelled. Any additional employment growth is captured within the background growth from NTEM.

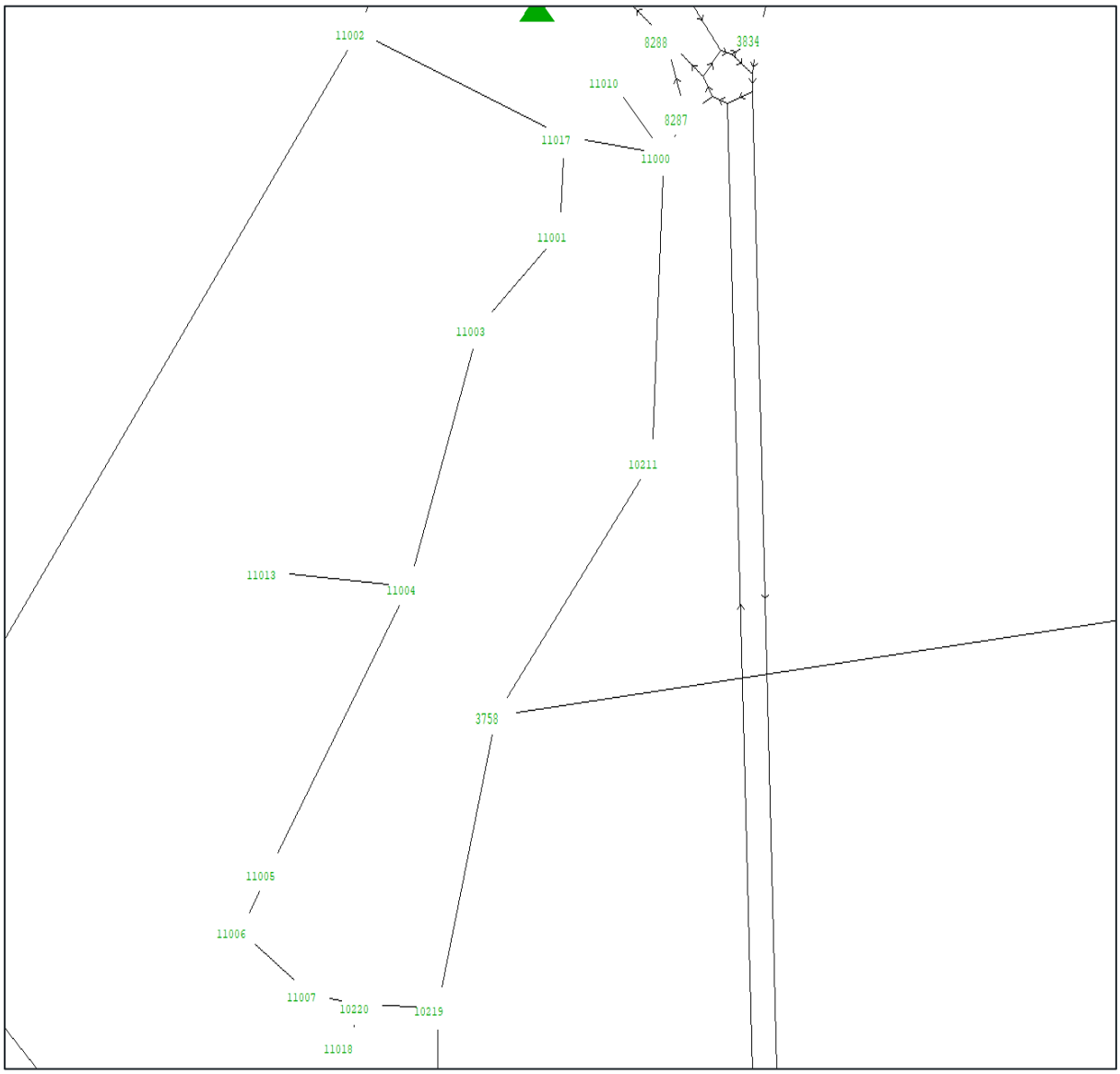
2036 Do Something Scenario :

9.2.16. The 2036 Do Something scenario builds upon the 2036 Do Minimum by incorporating the Proposed Development.

9.2.17. In this scenario, the trip generation, distribution, and assignment associated with the proposed development are added to the 2036 Do Minimum demand matrices. This enables the assessment of the incremental impacts of the Site on the local and strategic road network, over and above those arising from committed development alone.

9.2.18. Trip generation associated with the full Proposed Development has been incorporated into the 2036 Do Something scenario, and all relevant network changes required to support the scheme have been coded into the model. These network changes include the introduction of the proposed internal link road and the associated site access points, as illustrated in **Figure 9-1**. It should be noted that a loading point onto Worthing Road is included within the SATURN model at the location of the proposed A2 access which is not shown on the below layout.

Figure 9-1 - Site Access in SATURN



Network Statistics

The resulting network statistics from the SATURN traffic models are presented in **Table 9-2**.

Table 9-2 - SATURN network statistics

Model Scenario	Number of Vehicles (PCUs/hr)	Average Speed (km/hr)	Total Delay (PCU hrs / hr)
AM			
2024 Baseline	108,950.1	51.6	907.5
2036 Do Minimum	145,841.0	43.6	1,879.6
2036 Do Something	146,373.6	43.5	1,897.3
PM			
2024 Baseline	113,348.8	48.5	906.6
2036 Do Minimum	138,710.4	44.0	1,490.4
2036 Do Something	1392,14.6	43.8	1,533.2

Interpretation of Results

9.2.19. The results presented above indicate that future-year scenarios will experience increases in traffic demand across the wider highway network.

9.2.20. Analysis of the peak-hour statistics demonstrates that:

- The increase in vehicle flows between the 2024 Baseline and 2036 Do Minimum results in a reduction in average network speeds and a rise in total delay.
- These changes are primarily driven by the cumulative impact of committed developments and adopted Local Plan allocations, which add considerable pressure to the network.

9.2.21. When comparing the 2036 Do Minimum with the 2036 Do Something :

- Average speeds remain largely unchanged, reflecting that the additional traffic generated by the Proposed Development is relatively modest in the context of overall future-year demand.
- Total delay increases slightly, indicating a marginal rise in network congestion associated with the Site's traffic.

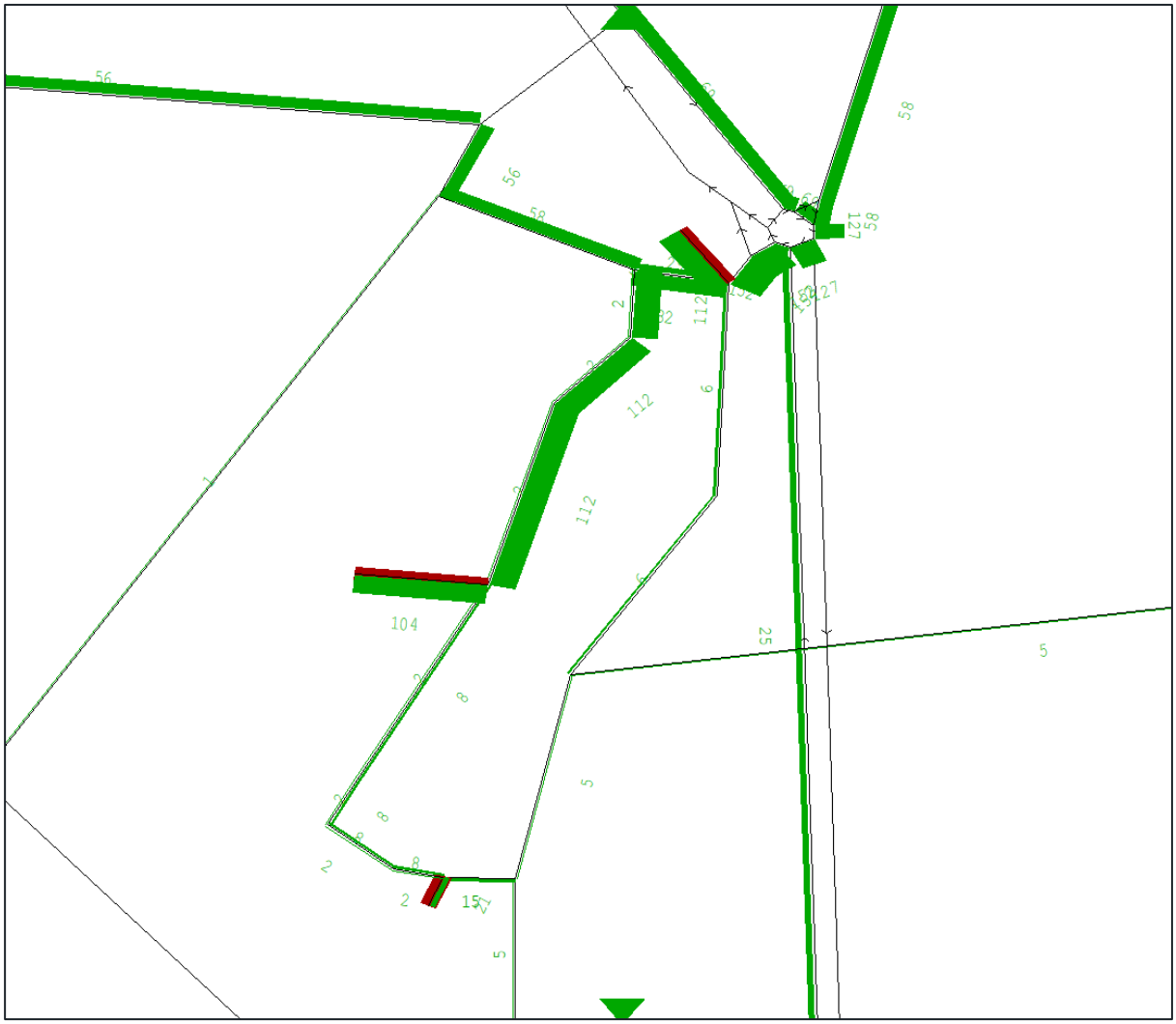
9.2.22. Overall, the modelling suggests that as traffic volumes increase toward 2036, journey times will lengthen and congestion will intensify, particularly during the AM and PM peak periods. The Proposed Development contributes only a small incremental effect on top of the wider growth already embedded in the Do Minimum scenario.

9.3. DEVELOPMENT TRAFFIC DISTRIBUTION

9.3.1. To illustrate how development-generated trips interact with the local network, WSP produced a series of select-link analyses showing development traffic flows during both the AM and PM peak hours for the full build-out of the Proposed Development.

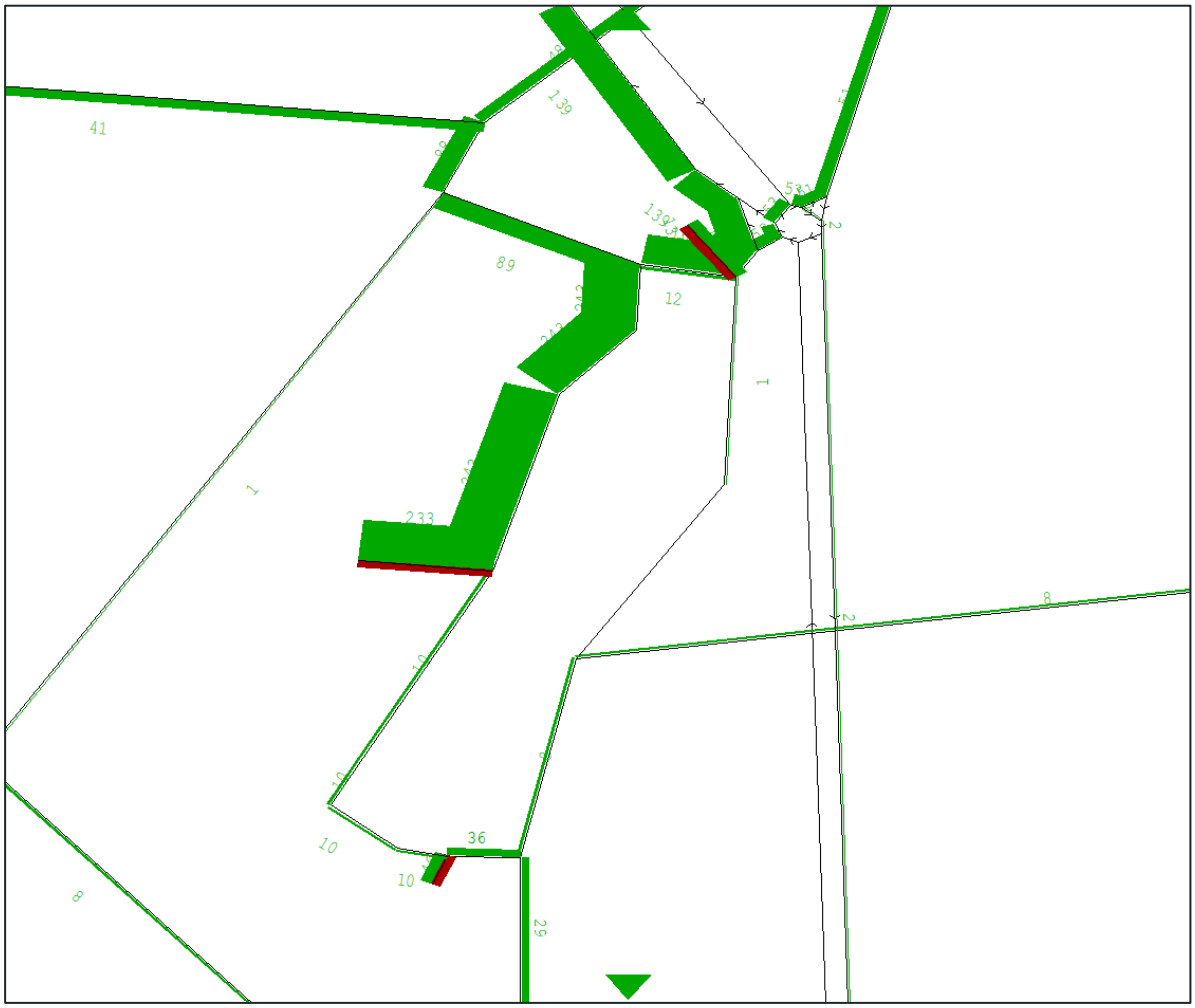
9.3.2. **Figure 9-2**, **Figure 9-3**, **Figure 9-4** and **Figure 9-5** present the distribution of inbound and outbound trips at the Site during the morning and evening peak periods, respectively. These figures provide a clear visual representation of how development traffic routes through the surrounding network and the relative scale of flows in different directions.

Figure 9-2 - Development Traffic AM Peak Arrivals



9.3.3. The select-link analysis indicates that the majority of inbound morning peak trips to the Site originate from the A24 corridor to the north, with approximately 69 vehicle trips assigned to this approach. The modelling indicates that limited traffic utilise the proposed A2 access onto Worthing Road, however this is seen a modelling quirk, and that some traffic will use this corridor. This is covered by the junction assessment which assumes a quantum of development does use this route. The modelling also shows that around 58 vehicles are forecast to arrive from Christ's Hospital Road, and a further 58 vehicles are expected to travel via Worthing Road from Horsham. The remaining inbound movements are distributed across other approaches, including the A24 from the south, Worthing Road (southbound), and Two Mile Ash Road.

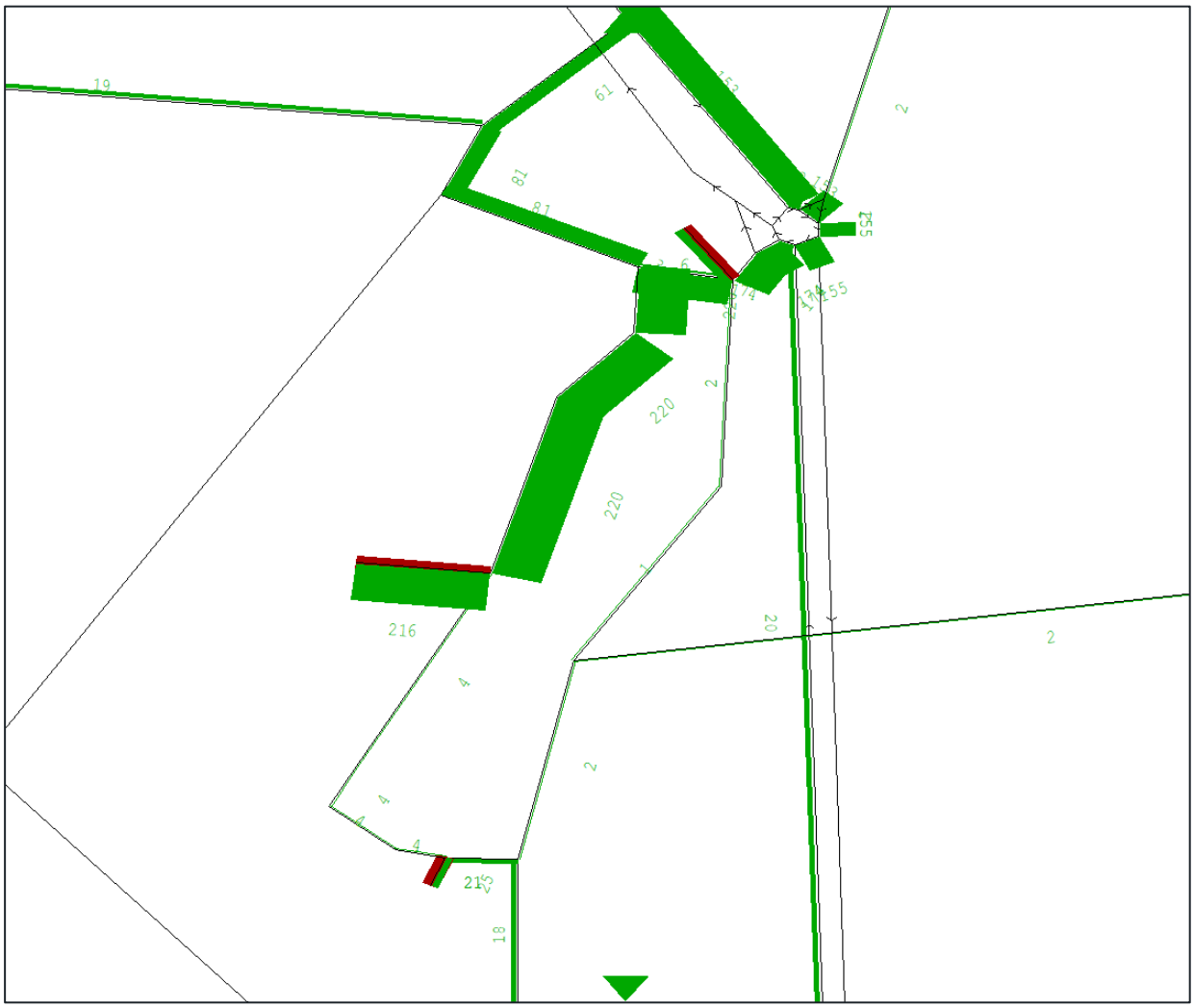
Figure 9-3 - Development Traffic AM Peak Departures



9.3.4. The select-link analysis indicates that outbound trips during the morning peak are significantly higher than inbound movements, which is consistent with a predominantly residential development of approximately 1,000 homes. The results show that the vast majority of outbound traffic is directed northbound, either via the A24, Two Mile Ash Road, or Worthing Road towards Horsham.

9.3.5. The analysis also highlights very limited use of the A24 to the south, with only two outbound trips assigned to this route from the Hop Oast roundabout. It appears that traffic heading south along the A24 access via the Mill Straight roundabout which indicated 29 outbound trips. Similarly, only eight vehicles are forecast to route via Southwater Street, demonstrating minimal reliance on this local road.

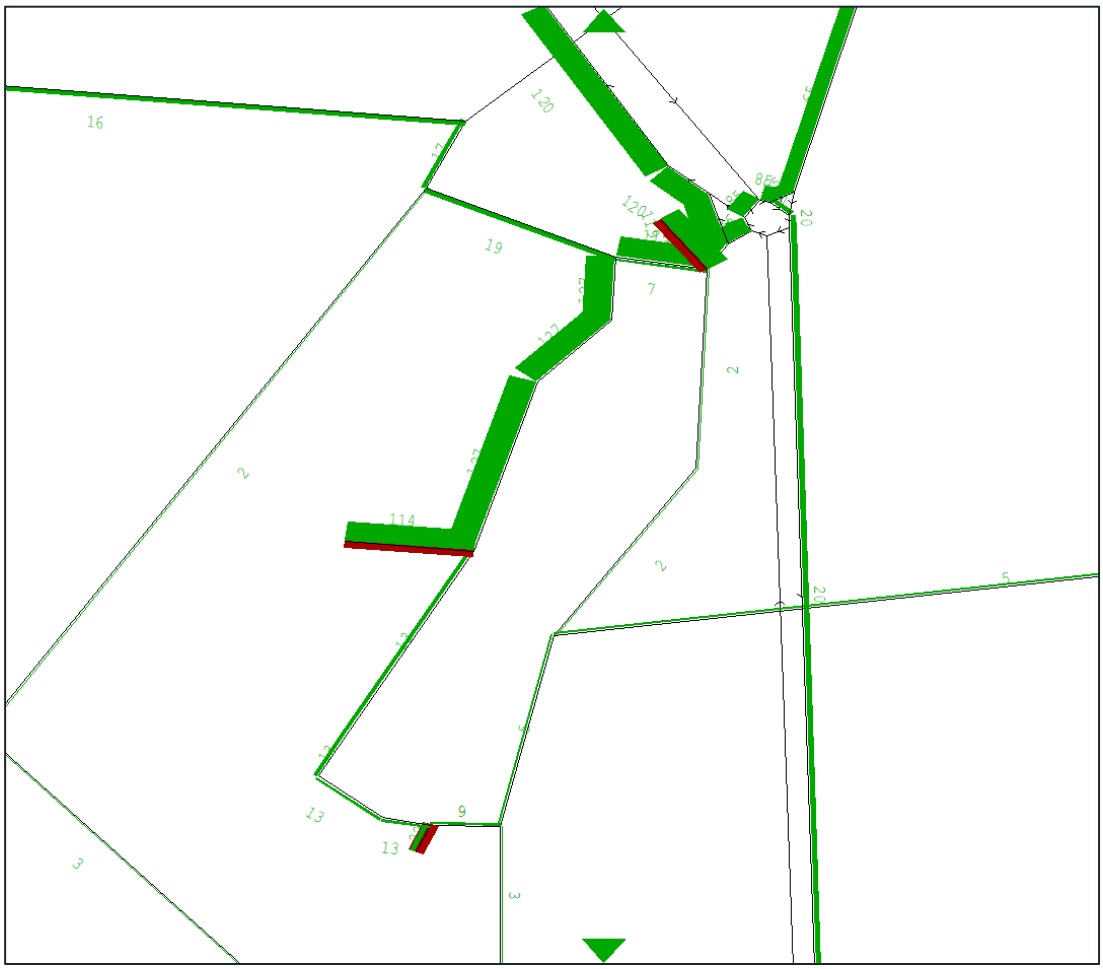
Figure 9-4 - Development Traffic PM Peak Arrivals



9.3.6. The select-link analysis of evening peak-hour inbound movements demonstrates that the primary corridors serving the development are the A24 north and Two Mile Ash Road. The A24 accommodates approximately 153 inbound vehicle trips from the north, reaffirming its role as the principal access route to the Site. In contrast to the morning peak, Two Mile Ash Road experiences an increase in demand during the evening peak, with around 61 vehicles travelling from Horsham via this corridor.

9.3.7. It should be noted that the full benefits of the Hop Oast signalisation is unlikely to be fully reflected within the modelling, or the introduction of the walking and cycling improvements along Two Mile Ash Road / Christ's Hospital Road are not assessed within the model given its strategic nature which will make the route less attractive. It is therefore expected that with the introduction of these measures, the level of traffic using Two Mile Ash Road will be significantly less. Other inbound approaches carry notably lower traffic volumes, with approximately 20 vehicles distributed across routes such as Worthing Road and the A24 from the south.

Figure 9-5 - Development Traffic PM Peak Arrivals



9.3.8. The distribution of evening peak-hour outbound trips shows a pattern broadly consistent with the morning peak, with the majority of vehicles travelling northbound. Most outbound movements utilise the A24 corridor, which accommodates approximately 120 vehicle trips, whilst a further 65 vehicles route via Worthing Road towards Horsham. The analysis also indicates that only a small number of vehicles use alternative routes—such as the A24 South, Christ's Hospital Road, and Two Mile Ash Road—demonstrating a clear preference among drivers for the primary northbound connections. This confirms the continued importance of the A24 and Worthing Road as the principal strategic and local corridors serving the development, with peripheral routes experiencing only minimal usage during peak period

9.4. JUNCTION ASSESSMENTS

9.4.1. Through pre-application discussions with WSCC, a study area has been agreed identifying the key junctions that would need to be assessed as part of the Application, this matches the assessments undertaken in the previous Transport Assessment. These are:

- The following Site Access Junctions:
  - Worthing Road North (south of the A24 Hop Oast).
  - Worthing Road Priority Junction.
  - Chessall Avenue / Cedar Drive Roundabout.

- Two Mile Ash Road.

- A24 Hop Oast Roundabout
- Worthing Road / Southwater Street
- Worthing Road / Fairbank Road
- Worthing Road / Church Lane
- A24 Corridor – presented in Table 9-3; and
- Horsham Town Centre – presented in Table 9-4

9.4.2. The Gypsy and Traveller access has not been assessed given the limited traffic that would be associated with 5 pitches on site.

9.4.3. Following a review of the traffic flows from the SATURN outputs, a detailed review has been undertaken to understand the difference between the Do Minimum and Do Something Scenarios.

9.4.4. **Table 9-3** below presents the difference in total traffic flows between the Do Minimum and the Do Something scenario on a series of junctions on the A24/ A264 corridor from Buck Barn to the A264/ Rupser Road roundabout.

Table 9-3 – Total Actual flows at Junctions on the A24/ A264 corridor

Junction	AM Peak				PM Peak			
	2036 DM	2036 DS	Difference	%	2036 DM	2036 DS	Difference	%
Robinhood Roundabout	5,897	5,866	-31	-0.5%	6,667	6,690	23	0.3%
Great Daux	5,261	5,270	9	0.2%	5,373	5,368	-5	-0.1%
A264/ Rusper Road	5,565	5,571	6	0.1%	5,896	5,891	-5	-0.1%
A264/ Langhurst Wood Road	3,469	3,469	0	0.0%	4,326	4,344	18	0.4%
A24/ A272 (Buck Barn)	5,157	5,173	16	0.3%	5,217	5,235	18	0.3%
A24 Hop Oast Roundabout	4,842	5,450	608	12.6%	4,731	5,292	561	11.9%
A24/ Mill Straight Roundabout	3,824	3,852	28	0.7%	4,112	4,243	131	3.2%

9.4.5. Focusing first on the AM Peak results from **Table 9-3**, distinguishable impacts from the development are only really seen on the A24 Hop Oast Roundabout which forecasts an increase in overall traffic by approximately 12%. Whilst at the other junctions along the A24/ A264 corridors the difference between DM and DS is less than 1%.

9.4.6. In the PM peak, the only junction with a difference over 10% between the DM and DS is the Hop Oast Roundabout. Whilst at the other junctions along the A24/ A264 corridors the difference between DM and DS is less than 1% except the A24/ Mill Straight Roundabout which is forecast to have an increase in traffic of approximately 3%.

9.4.7. As a result, the only junctions to be assessed via an individual junction assessment is the A24 Hop Oast Roundabout and the A24/ Mill Straight Roundabout as the percentage change is over 2% in either the AM or PM peak.

9.4.8. A similar assessment has been undertaken for the junctions within Horsham Town Centre to understand the difference between the Do Minimum and Do Something scenarios. The results are presented in **Table 9-4** below.

Table 9-4 - Total Actual flows at Junctions in Horsham Town Centre

Junction	AM Peak				PM Peak			
	2036 DM	2036 DS	Difference	%	2036 DM	2036 DS	Difference	%
Albion Way/ CP/ Worthing Road	2,523	2,556	33	1.31%	2,376	2,421	45	1.89%
B2237 Albion Way/ A281 Guildford Road	2,869	2,858	-11	-0.38%	2,461	2,475	14	0.57%
Albion Way/ B2237 Springfield Road	2,797	2,774	-23	-0.82%	2,270	2,266	-4	-0.18%

9.4.9. Focusing on the AM peak results, the only junction which is forecast to have an increase in overall traffic flow is at the Albion Way/ Sainsburys/ Worthing Road/ Mill Bay Lane roundabout, which sees an increase of 33 vehicles which equates to 1.3%. The two other junctions forecast a slight decrease between the Do Something and Do Minimum scenario.

9.4.10. Whilst in the PM peak, two junctions are forecast to have a slight increase in traffic flow between the Do Something and Do Minimum scenario. The biggest increase of 45 vehicles is at the Albion Way/ Sainsburys/ Worthing Road/ Mill Bay Lane roundabout, this equates to an increase of 1.9%. A similar approach has been taken on the A24 corridor, as the forecast increase is less than 2% no individual junction assessments will be undertaken.

9.4.11. It should be noted again that the traffic modelling undertaken does not yet take account of key strategic mitigation schemes expected along the A24 corridor as part of the A24 corridor study (yet to occur). Where appropriate, WSP have taken the traffic flows provided and assessed them through the existing junction arrangement and any proposed mitigation to show that these junctions can accommodate the traffic identified.

9.4.12. It is noted that Proposed Development has minimal impact on the Worthing Road flows north of the Hop Oast Roundabout and as such will have minimal impact on the operation on the Horsham Recycling Centre.

9.4.13. The tables below present the results of the junction operational assessments carried out. The appropriate analysis software has been used in each case, with LINSIG used for the traffic signal control junctions and Junctions 9 for the priority junctions and roundabouts.

9.4.14. It should also be noted that the signal junctions assessed as part of this application currently operates with Microprocessor Optimised Vehicle Actuation (MOVA). This means that the green times on each approach will continually adjust based on the volume and timings of arriving vehicles on each approach. MOVA optimised traffic signals are able to manage queueing and delays more efficiently than signals operating with fixed timings, as they can react to real time changes in traffic. Therefore, the capacity of the junction is maximised. The impacts of MOVA control cannot be fully represented in LinSig modelling, and it should be noted that its use could result in a reduction in reported delay of around 10-13%. This is taken from the “MOVA: The 20 Site Trial” research document which has written on behalf of the Transport and Road Research Laboratory (TRL).

9.4.15. For additional analysis, queue lengths have also been presented as a Uniform Queue at the end of Red (UQ Red End). UQ Red End queue lengths represent the extent of the uniform queue on a lane at the end of the lane’s controlling phase’s red period. It therefore represents the maximum stationary queue that will form on an approach while the signals are red, noting that vehicles at the end of that queue may be able to disperse as soon as the signals turn green. It should be noted that the UQ Red End allows only for the variation of the queue within a typical cycle and does not include random and oversaturation queues, or queues occurring from random traffic arrival variations (according to the Linsig User Guide), which are assessed as part of the Mean Maximum Queue. This is a more realistic representation of stationary queuing at a traffic signal junction, especially on the circulatory carriageway as the MMQ includes the queue that builds during a green phase.

9.4.16. The following glossary defines the terms used in the tables:-

- DoS% - Degree of Saturation on an approach, ideally being less than 90%;
- UEQ – Uniform End Queue – the queue at the end of each red phase;
- MMQ – Mean Max Queue – the average queue on each arm;
- PRC% - Percentage reserve capacity for the whole junction, ideally being greater then 10% to cope with day to day variations in traffic flows. A negative PRC is a junction operating over its capacity;
- RFC – ratio of flow to capacity on an approach, ideally less than 0.85 to 0.9 to cope with day to day variations in traffic flows;
- LOS – Level of Service, as defined in terms of delay on the approach and as below:-
- LOS A - free flow;
- LOS B - reasonably free flow;
- LOC C – stable flow;
- LOS D – approaching unstable flow;
- LOS E - unstable flow; and
- LOS F - forced or breakdown flow.

9.4.17. The assessments are based on the following scenarios as these represent the highest levels of traffic flows from the strategic modelling outputs.

9.4.18. It should be noted that these scenarios also include relevant committed development and background traffic growth up to 2038. Each junction is assessed for each peak hour.

9.4.19. The junction turning counts are presented in **Annex I** and the full outputs of the junction modelling is included **Annex J**.

SITE ACCESS A1 – WORTHING ROAD NORTH (ROUNDABOUT SOUTH OF HOP OAST)

9.4.20. **Table 9-5** below sets out the results of the assessments carried out of this junction based on the configuration set out at **Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0103**.

Table 9-5 - Worthing Road/ Site Access Roundabout Junction Modelling Results

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2036 Do Something								
A- Worthing Road N	1	4	0.35	A	1	4	0.49	A
B- Worthing Road S	2	10	0.59	A	2	10	0.59	A
C- Site Access- Residential	1	7	0.36	A	1	6	0.22	A
D- Site Access- Employment	1	7	0.08	A	1	5	0.11	A

9.4.21. The results above show that the new roundabout will operate within capacity in both the AM and PM peak. A maximum RFC of 0.59 was recorded on Worthing Road South approach in the AM and PM peak. The arm has an associated delay of ten seconds and a queue of two PCUs in both peaks

SITE ACCESS A2 – WORTHING ROAD (PRIORITY JUNCTION NORTH OF NETHERTON CLOSE)

9.4.22. **Table 9-6** below sets out the results of the assessments carried out of this junction based on the configuration set out at **Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0101**.

Table 9-6 – Worthing Road/ Site Access Priority Junction Modelling Results

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2036 Do Something								
Site Access (B) -AC	1	9	0.38	A	1	6	0.17	A
Worthing Road (N) (C)-AC	1	8	0.18	A	1	9	0.36	A

9.4.23. The results forecast that the priority junction will operate well within capacity in both the AM and PM peak hours.

SITE ACCESS A3 – WORTHING ROAD / CHESSALL AVENUE / CEDAR DRIVE ROUNDABOUT AND CHESSALL AVENUE / SECONDARY ROAD

9.4.24. **Table 9-7** and **Table 9-8** below sets out the modelling results of the assessments carried out at the existing roundabout and proposed priority junction. This includes the operation of the roundabout based on its existing arrangement in the DM scenario – i.e. the western arm (Chessall Avenue) serving only the Broadacres scheme. The DS scenario is based on the revised arrangement of Chessall Avenue set out at Section 4 - i.e. Chessall Avenue effectively forming the secondary access road for the Development.t.

9.4.25. Given that the Cedar Drive arm of the junction was not included in the strategic model, turning flows to / from this arm are based on observed turning movements. Furthermore, the future baseline traffic flows on Chessall Avenue have been taken from the Broadacres Transport Assessment as the strategic model turning flows from the Broadacres development are significantly lower than those in the Broadacres Transport Assessment. The flows from the strategic model have been added into the Do Something scenario (for robustness) even though the majority of residents are likely to use the primary road to access the A24 heading northbound.

Table 9-7 - Worthing Road / Chessall Avenue / Cedar Drive Roundabout Junction Modelling Results

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2036 Do Minimum								
A- Worthing Road N	1	5	0.31	A	4	13	0.77	A
B- Cedar Drive	1	6	0.38	A	1	5	0.18	A
C- Worthing Road S	1	6	0.40	A	1	5	0.28	A
D- Chessall Avenue	1	6	0.27	A	1	4	0.12	A
2036 Do Something								
A- Worthing Road N	1	6	0.48	A	3	12	0.75	A
B- Cedar Drive	1	8	0.48	A	1	5	0.19	A
C- Worthing Road S	1	8	0.50	A	1	6	0.34	A
D- Chessall Avenue	1	7	0.36	A	1	7	0.46	A

9.4.26. The results above show that this junction is operating within capacity in both the 2036 Do Minimum scenario and the 2036 Do Something with the development. The maximum RFC is 0.77 during the PM peak in the 2036 Do Minimum scenario, with an associated queue of four PCU and a delay of 13 seconds.

9.4.27. **Table 9-8** presents the modelling results for the new Site Access Road (Secondary Road) with Chessall Avenue priority junction as per Drawing **UK0043490.9681-WSP-XX-XX-DR-TP-0100**which will the new connection point for residents within Broadacres onto Chessall Avenue / Secondary Road. The junction is located 120m west of the Worthing Road roundabout. The junction turning flows for the Broadacres development have been taken from the Transport Assessment, traffic arriving or departing north on Worthing Road has been assumed to turn left out of the priority. Whilst traffic heading towards Cedar Drive or south on Worthing Road has been assumed to turn right out of Chessall Avenue. The mainline flows on the Secondary Road have taken from Arm C of the Chessell Avenue model outputs.

Table 9-8 - Site Access Road/ Chessall Avenue Priority Junction Modelling Results

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2036 Do Something								
Chessall Avenue (B)	2	15	0.53	C	1	13	0.33	B
Secondary Road (Site Access) (W)	1	6	0.06	A	1	8	0.14	A

9.4.28. The modelling results forecast the junction to operate within capacity in the AM and PM peak in the Do Something scenario with minimal delays and queues forecast.

SITE ACCESS A4 – TWO MILE ASH ROAD PRIORITY JUNCTION

9.4.29. The Two-Mile Ash Road priority junction will provide an access from the secondary road to Two Mile Ash Road. The access is the only access on the western side of the Site. As the access does not provide a key link to any of the local services (except Christ's Hospital railway station and leisure centre) the link will only provide an alternative route as opposed to a primary point of access and so it is anticipated that the junction will experience low vehicular flows. Coupled with existing low traffic flows on Two Mile Ash Road, the usage at the junction is forecast to be low.

9.4.30. **Table 9-9** below sets out the results of the assessments carried out of this junction based on the configuration set out at **Drawing UK0043490.9681-WSP-XX-XX-DR-TP-0102.** It is noted in the trip distribution (Section 8.9) that a proportion of residential leisure trips would go to the facility in Christ's Hospital and have been forecast to be undertaken by active travel modes, this equates to 16 and 25 two-way trips in the AM and PM peak respectively. For robustness these flows have been included in the junction modelling which has been manually assigned into the model. The amount of the development forecast to utilise this junction is significantly higher than what would occur due to the limited destinations in Christ's Hospital.

Table 9-9 – Two Mile Ash Road/ Site Access Priority Junction Modelling

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2036 Do Something								
Site Access (B) -AC	2	17	0.54	C	1	12	0.21	B
Two Mile Ash Road (S) (C)-AC	0	0	0	A	0	0	0	A

9.4.31. The modelling results forecast the junction to operate within capacity in the AM and PM peak in the Do Something scenario with minimal delays and queues forecast.

A24 HOP OAST ROUNDABOUT

9.4.32. **Table 9-10** presents the modelling results for the A24 Hop Oast roundabout based on the existing layout for both Do Minimum and Do Something Scenario

Table 9-10 – A24 Hop Oast Roundabout (Existing Layout) Junction Modelling Results

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2036 DM								
A - Worthing Road N	1	7	0.50	A	1	9	0.40	A
B- A24 E	61	108	1.00	F	2	6	0.64	A
C- Worthing Road S	1	6	0.24	A	1	4	0.20	A
D- A24 W	12	23	0.92	C	466	619	1.12	F
2036 DS								
A - Worthing Road N	1	7	0.49	A	1	8	0.32	A
B- A24 E	78	137	1.01	F	3	6	0.66	A
C- Worthing Road S	1	6	0.23	A	1	4	0.20	A
D- A24 W	10	19	0.91	C	620	822	1.16	F

9.4.33. The results highlight that the junction is forecast to operate over capacity with and without the development in 2036 in the AM and PM peaks. In the AM peak the approach that is forecast to be over capacity is the A24 Eastern approach which will have an associated queue of 61 PCUs and a delay of 108 seconds,

9.4.34. As outlined previously, WSCC have considered two mitigation schemes that could enhance the capacity and deliver improvement to the connectivity at the junction for pedestrians, cyclists and public transport users. WSP have considered an amended version of the WSCC scheme which includes a bus lane southbound as part of the signalisation works, alongside the pedestrian and cyclist improvements. Based upon the traffic flows, WSP have altered the layout to improve capacity which is set out in WSP Drawing **UK0043490.9681-WSP-XX-XX-DR-TP-0110** which is included in **Annex G**.

Table 9-11 - A24 Hop Oast Signalised Roundabout (with Bus Lanes) Junction Modelling Results (Actual Flow)

	Junction Arm	AM Peak				PM Peak			
		DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ	DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ
	2036 DS								
1/1	A24 North Left Ahead	80	20	13	6	83	14	16	5
1/2+1/3	A24 North Ahead	85	18	14	6	89	12	13	4
2/2+2/3	Worthing Road East Left Ahead	66	28	6	4	66	38	5	4
3/1	A24 South Left Ahead	78	22	12	6	67	22	9	5
3/2	A24 South Ahead	75	21	12	7	68	22	9	6
3/3	A24 South Ahead	60	17	8	5	34	16	4	3
4/1	Worthing Road West Left	35	2	1	-	28	2	1	-
4/2+4/3	Worthing Road West Ahead	76	52	5	3	49	25	4	3
9/1	Circ @ Worthing Road West Ahead	43	3	1	0	39	3	1	0
9/2	Circ @ Worthing Road West Ahead	65	4	3	1	44	3	1	0
9/3	Circ @ Worthing Road West Right	38	2	1	0	22	2	1	0

	Junction Arm	AM Peak				PM Peak			
		DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ	DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ
10/1	Circa @ A24 North Ahead	44	15	5	4	74	37	6	4
10/2	Circa @ A24 North Ahead Right	83	23	6	3	88	63	7	3
10/3	Circa @ A24 North Right	1	11	0	0	16	20	1	1
11/1	Circ @ Worthing Road East Ahead	32	2	1	0	60	5	2	1
11/2	Circ @ Worthing Road East Ahead	57	3	2	0	67	6	3	2
11/3	Circ @ Worthing Road East Ahead Right	30	3	1	0	57	5	3	1
12/1	Circa @ A24 South Ahead	61	18	7	4	81	19	9	6
12/2	Circa @ A24 South Ahead Right	33	4	1	0	0	0	0	0
Overall Junction Performance		PRC Over All lanes 6.9% Cycle Time: 60s				PRC Over All lanes 1.4% Cycle Time: 60s			

9.4.35. The results show that following the delivery of the mitigation scheme, the junction is forecast to operate within capacity using actual flows from the SATURN model in the AM and PM peak. This indicates that all the queues at the junction will clear each cycle. The longest delay of 63 seconds is forecast on the Circulatory A24 North Ahead Right approach in the PM peak with an associated queue of seven PCUs

9.4.36. Given the strategic nature of this junction and its importance as an access into the Proposed Development, an assessment has been undertaken using the modelled demand flow. **Table 9-12** presents the junction modelling results for the Hop Oast roundabout with the Demand Flow.

Table 9-12 - A24 Hop Oast Signalised Roundabout (with Bus Lanes) Junction Modelling Results (Demand Flow)

	Junction Arm	AM Peak				PM Peak			
		DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ	DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ
	2038 DS								
1/1	A24 North Left Ahead	87	23	17	7	96	29	28	6
1/2+1/3	A24 North Ahead	90	21	18	6	98	28	28	5
2/2+2/3	Worthing Road East Left Ahead	70	29	6	4	78	49	6	4
3/1	A24 South Left Ahead	86	26	15	7	73	25	10	6
3/2	A24 South Ahead	70	17	11	6	77	26	11	7
3/3	A24 South Ahead	53	14	7	5	34	17	4	3
4/1	Worthing Road West Left	35	2	1	-	28	2	1	-
4/2+4/3	Worthing Road West Ahead	76	52	5	3	37	18	4	3
9/1	Circ @ Worthing Road West Ahead	52	3	1	0	49	4	1	0
9/2	Circ @ Worthing Road West Ahead	65	4	3	1	56	4	1	0
9/3	Circ @ Worthing Road West Right	36	2	1	0	25	3	1	0
10/1	Circa @ A24 North Ahead	59	20	6	4	86	60	7	5
10/2	Circa @ A24 North Ahead Right	86	30	11	3	84	22	6	2
10/3	Circa @ A24 North Right	1	14	1	0	16	26	1	1
11/1	Circ @ Worthing Road East Ahead	38	3	1	0	68	5	2	1

	Junction Arm	AM Peak				PM Peak			
		DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ	DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ
11/2	Circ @ Worthing Road East Ahead	64	4	2	1	72	6	3	2
11/3	Circ @ Worthing Road East Ahead Right	34	3	1	0	62	5	5	1
12/1	Circa @ A24 South Ahead	74	24	9	5	87	23	11	7
12/2	Circa @ A24 South Ahead Right	37	5	2	1	0	0	0	0
Overall Junction Performance		PRC Over All lanes 0.4% Cycle Time: 60s				PRC Over All lanes -8.1% Cycle Time: 60s			

9.4.37. The modelling results from the Hop Oast Roundabout mitigation forecasts that the junction will continue to operate within capacity in the AM peak and approaching capacity the PM peak using the demand flows form the SATURN outputs. The arm with the highest degree of saturation of 98% is the A24 North Ahead in the PM peak with an associated queue of 28 PCUs and delay of 28 seconds. These results present a significant betterment to existing layout of the roundabout.

9.4.38. In summary the signalised option provides a significant benefit to all approaches for vehicles at the roundabout. Furthermore, the introduction of a signalised pedestrian and cycle crossing facilities on the A24 southern approach will enable increased active travel movements from either side of the A24.

WORTHING ROAD / SOUTHWATER STREET PRIORITY JUNCTION

9.4.39. **Table 9-13** below sets out the results of the assessments carried out of this junction.

Table 9-13 – Worthing Road / Southwater Street Priority Junction Modelling Results

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2036 DM								
Southwater Street (B)-AC	3	29	0.68	D	117	828	1.41	F
Worthing Road (S) (C)-AB	4	15	0.71	B	2	9	0.44	A
2036 DS								
Southwater Street (B)-AC	5	57	0.84	F	75	514	1.26	F

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Worthing Road (S) (C)-AB	4	18	0.73	C	2	10	0.45	A

9.4.40. The results above show that this junction is expected to operate within capacity during the AM peak and over-capacity in the PM peaks in each scenario. A maximum RFC of 1.41 is shown on Stream B-AC (Southwater Street- Worthing Road) during the PM peak of 2036 Do Minimum scenario.

9.4.41. The significantly higher flow on Southwater Street compared to the previous modelling undertaken in the 2022 Transport Assessment is due to Southwater Street and Kerves Lane providing a secondary route into Horsham Town Centre. It is expected that the improvement scheme proposed at Hop Oast roundabout will reduce the level of impact identified at this location.

WORTHING ROAD / FAIRBANK ROAD

9.4.42. **Table 9-14** below sets out the results of the assessments carried out of this junction. Given that the Fairbank Road arm of the junction was not included in the strategic model, turning flows to / from this arm are based on observed turning movements.

Table 9-14 – Worthing Road/ Fairbank Road Signal Junction Modelling Results

	Junction Arm	AM Peak				PM Peak			
		DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ	DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ
	2036 DM								
1/1	Worthing Rd (S) - Entry Right Ahead	45	19	6	4	44	24	5	4
2/1	Worthing Rd (N) - Entry Left Ahead	35	18	4	3	59	24	7	5
3/1	Fairbank Rd - Entry Right Left	50	43	4	3	81	55	8	5
Overall Junction Performance		PRC Over All lanes 83.4% Cycle Time: 77s				PRC Over All lanes 11.4% Cycle Time: 75s			
	2036 DS								
1/1	Worthing Rd (S) - Entry Right Ahead	53	21	7	5	51	25	6	4
2/1	Worthing Rd (N) - Entry Left Ahead	41	18	5	4	68	27	9	6

	Junction Arm	AM Peak				PM Peak			
		DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ	DoS%	Delay (s)	Queue (Veh) MMQ	Queue (Veh) UEQ
3/1	Fairbank Rd - Entry Right Left	50	43	4	3	81	55	8	5
Overall Junction Performance		PRC Over All lanes 72.5% Cycle Time: 77s				PRC Over All lanes 11.4% Cycle Time: 75s			

9.4.43. The results above show that the junctions PRC reduces in the AM peak to 72.5% and remains the same in the PM peak of 11.4%. This indicates that the junction is operating within capacity during both the 2038 Do minimum and Do something scenario. The DoS increases on Worthing Road S and Worthing Road N, with the highest on Worthing Road North during the PM peak of 68%. This has an associated MMQ of 9 PCUs and delay time of 27 seconds. The DoS remains the same on Fairbank Road, with the highest DoS of 81%.

WORTHING ROAD / CHURCH LANE / ANDREW'S LANE

9.4.44. **Table 9-15** below sets out the results of the assessments carried out of this junction. Given that the Andrew's Lane arm of the junction was not included in the strategic model, turning flows to / from this arm are based on observed turning movements. Furthermore, the future baseline traffic flows on Church Lane have been taken from the Broadacres Transport Assessment as the strategic model turning flows from the Broadacres development are significantly lower than those in the Broadacres Transport Assessment.

Table 9-15 – Worthing Road / Church Lane / Andrew's Lane Crossroads Junction Modelling Results

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2036 DM								
Andrews Lane (B) -ACD	0	8	0.02	A	0	0	0.00	A
Worthing Road (N) (A)-BCD	1	6	0.11	A	0	6	0.02	A
Church Lane (D) -ABC	1	11	0.16	B	31	221	1.10	F
Worthing Road (S) (C)-ABD	0	6	0.01	A	0	5	0.01	A
2036 DS								
Andrews Lane (B) -ACD	0	8	0.02	A	0	0	0.00	A
Worthing Road (N) (A)-BCD	1	6	0.09	A	0	6	0.02	A

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Church Lane (D) -ABC	1	11	0.14	B	2	17	0.55	C
Worthing Road (S) (C)-ABD	0	6	0.01	A	0	5	0.01	A

9.4.45. The junction modelling results highlight that the junction operates within capacity in the AM peak for the Do Minimum scenario and in both peaks in the Do Something scenarios. Whilst in the PM peak in the Do Minimum scenario the junction is forecast to operate over capacity. The arm over capacity is Church Lane which forecast to have a queue of 31 PCUs and an associated delay of 221 seconds.

9.4.46. The Do-Minimum constraint on Church Lane is partly due to traffic to and from Southwater is loaded onto the network at Church Lane, when in reality a large proportion will access residential areas north of the existing junction. Furthermore, the delivery of the new internal road network and connections to Broadacres, reduces the level of traffic at this junction in the Do Something Scenario which results in the betterment of the junction operation.

A24 / MILL STRAIGHT (POLLARDS HILL) ROUNDABOUT

9.4.47. **Table 9-16** below sets out the results of the assessments carried out of this junction. This is based on the amended layout (minor kerb line changes) that forms part of the mitigation strategy for the committed Mulberry Fields development at the southern end of Mill Straight (DC/14/2582), as shown in Drawing C82946-SK-211 of the respective 2014 Transport Assessment.

Table 9-16 – A24/ Mill Straight (Pollards Hill) Roundabout Junction Modelling Results

Junction Arm	AM Peak				PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2036 DM								
A – A24 North	2	4	0.58	A	6	10	0.84	A
A- A24 South	2	5	0.64	A	2	5	0.60	A
B- Mill Straight	2	9	0.64	A	1	6	0.44	A
2036 DS								
A- A24 North	2	4	0.57	A	5	9	0.83	A
B- A24 South	2	5	0.65	A	2	5	0.61	A
C- Mill Straight	2	10	0.67	A	1	6	0.44	A

9.4.48. The results above show that the junction is expected to operate within capacity across all scenarios in the AM and PM peak. The development has minimal impact on the roundabout operation with the highest RFC value of 0.84 occurring in the DM scenario in the PM on the approach from the A24 northern arm, with associated delay of 10 seconds and a queue of six PCUs.

SUMARY

9.4.49. The junction assessments details that only the Hop Oast roundabout and the Worthing Road/ Southwater Street junctions are forecast to operate over capacity in the Do Something Scenario. WSCC has developed an improvement scheme for the Hop Oast roundabout, which WSP have amended to provide a bus lane southbound through the junction and provide the pedestrian and cycle facilities to connect into the Proposed Development. The improvement scenario forecasts the junction to operate within or at capacity with the actual and demand flows from the model outputs.

9.4.50. The Worthing Road/ Southwater Street priority junction operates over capacity both scenarios with minimal impact from the Proposed Development, whilst the Worthing Road/ Church Lane / Andrew's Lane operates over capacity in the Do Minimum scenario. The introduction of the Proposed new infrastructure within the Proposed Development, alongside the Hop Oast improvement scheme should mitigate and in some locations provide betterment to the local highway network.

9.5. STRATEGIC ROAD NETWORK IMPACT

9.5.1. This section details the impact of the Development on the Strategic Road Network (SRN) specifically as shown by way of the full strategic model outputs that are included at **Annex K**.

9.5.2. These outputs are detailed further below in terms of peak hour development traffic flows on the sections of the A23 north and south of the A272 and the sections of the A23 / M23 to the north and south of the A264. **Table 9-15** presents the flow differences.

Table 9-17 - Development Traffic Flows on the SRN

Link Section of SRN	Northbound	Southbound	Two-way
AM Peak			
M23 (North of A264)	+2	+7	**+9**
A23 (South of A264)	0	0	**0**
A23 (North of A272)	0	0	**0**
A23 (South of A272)	0	+2	**+2**
PM Peak			
M23 (North of A264)	+6	+4	**+10**
A23 (South of A264)	0	0	**0**

Link Section of SRN	Northbound	Southbound	Two-way
A23 (North of A272)	0	0	**0**
A23 (South of A272)	+4	+1	**+5**

9.5.3. It is clear that the Development would result in a negligible change in traffic flows on the SRN. The AM peak hour would see changes of up to 9 additional vehicles two-way on the SRN (A23 North of A264) while the PM peak hour would see changes of up to 10 additional vehicles two-way on the SRN (M23 North of A264).

9.5.4. On the basis of the above, it is considered that the Development would not have a significant impact upon the operation of the SRN.

9.6. SUMMARY

9.6.1. This section has set out the potential highway impacts associated with the Proposed Development, and where appropriate identified mitigation solutions.

9.6.2. The traffic modelling has shown that the Proposed Development will have minimal impact upon the A24 corridor, except at the Hop Oast Junction which in line with WSCC A24 studies, will be fully signalised. The modelling has shown that the Proposed Development will provide additional capacity at Hop Oast which will operate within capacity. The mitigation sought as part of the development would mean that there would be no severe impacts on the local highway network within proximity to the Site.

9.6.3. In respect to the Strategic Highway Network, the Proposed Development will see negligible traffic reaching the M23 and A23 (maximum of 10 vehicles 2 way) which is not considered to be significant.

10. MITIGATION STRATEGY

10.1.1. This Chapter summarises the proposed mitigation strategy to offset the identified net transport impacts associated with the Proposed Development. This is also shown on the Transport Strategy plan at **Annex H**.

10.2. WALKING AND CYCLING

10.2.1. A comprehensive Walking and Cycling Strategy has been devised as part of the Proposed Development. This includes the delivery of new and enhanced routes within the Site, as well as improvements to existing off-site routes.

10.2.2. In particular a connection to National Cycle Route 223 (the 'Downs Link'), which operates through the Site, would be provided while a contribution towards improvements to the Downs Link can also be secured as part of the Proposed Development.

10.2.3. The proposed primary road through the Site would be provided with comprehensive, high-quality walking and cycling infrastructure to LTN 1/20 standards and would connect to adjoining walking and cycling routes within the Site and to off-site areas. In particular, this includes a connection to a proposed new signal controlled, at-grade pedestrian and cyclist crossing facility over the A24 at the Hop Oast roundabout.

10.2.4. A new trim trail - of a minimum of 5km in length - will also be incorporated within the Site, providing an additional route for pedestrians and cyclists, celebrating both nature, heritage and archaeology and encouraging healthy and active lifestyles.

10.2.5. A number of key off-site walking and cycling routes to destinations such as Horsham and Christ's Hospital will also be enhanced by way of infrastructure improvements that will be delivered as part of the Proposed Development, or by way of a contribution to WSCC towards the delivery of these schemes.

10.3. PUBLIC TRANSPORT

10.3.1. A Public Transport Strategy has been produced and is set out in this TA. This outlines a number of options that have been investigated in respect to reasonably maximising the accessibility credentials of the Site in respect to public transport. The suggested strategy for maximising the accessibility credentials of the Site by public transport.

10.3.2. In summary, it is considered that the most optimum solution would be through a contribution to enhancements to the 23 service between Horsham and Worthing this includes increases to the frequency of the service along with the potential for re-routing of services at school times through the northern part of the Site. This would sit alongside the bus services improvements by the Horsham Golf Course application which is enhancing the 98 service that operates between Southwater and Horsham via the P&R, to every 15 minutes.

10.4. TRAVEL PLANNING

10.4.1. A Framework Travel Plan (FTP) has been prepared and is submitted with the application as a standalone document.

10.4.2. This sets out potential measures, targets and monitoring procedures for minimising single occupancy car use amongst future users of the Site. It is anticipated that Full Travel Plans associated with each land use (e.g. residential, educational etc) will then be provided alongside any reserved matters applications, particularly at both schools and employment uses when operators are known.

10.5. SITE LAYOUT

10.5.1. Whilst the application is submitted in outline, with details relating to the layout of the Site being reserved matters, it is envisaged that the layout of the Site will inherently prioritise walking and cycling trips above motorised vehicular modes. The design principles for the highway layout are summarised in Chapter 5 of this document.

10.5.2. The mixed-use nature of Proposed Development also inherently enhances the accessibility credentials of the Site, enabling future (and existing) residents of the area to access key day to day amenities, such as retail, employment, education and leisure facilities. Notwithstanding this, these on-site facilities would not detract from the existing facilities within Southwater (including those at Lintot Square).

10.5.3. Car parking would be provided on-site fully in accordance with relevant local standards. The car parking strategy will ensure that the projected demands of the proposed development are accommodated on-site - and within designated car parking areas - at all times, whilst not otherwise discouraging from use of non-car modes of travel. The car parking strategy would be addressed in full at the reserved matters stage.

10.5.4. Electric vehicle charging will be provided on-site. The exact quantum and type of provision will be determined at the reserved matters stage with reference to the latest relevant policy and best-practice guidance at that time.

10.5.5. Cycle parking would be provided on-site, fully in accordance with local standards.

10.6. ROAD NETWORK

10.6.1. The following improvements would be made to the existing road network in order to mitigate the projected traffic impacts associated with the Proposed Development.

- **A24 / Worthing Road (Hop Oast) Roundabout** - In-line with WSCC's A24 Corridor Enhancement Study, the Hop Oast roundabout would be fully signalised in order to allow for safe crossing of pedestrians and cyclists across the A24 and to increase capacity of the junction for motorised vehicles.

10.6.2. Contributions to wider WSCC transport schemes, as identified in the West Sussex Transport Plan and Infrastructure Development Plan, could also be made as part of the Proposed Development such as to schemes along the A24 corridor, if considered to be required by WSCC / HDC and subject to further discussion and agreement with the Applicant. Further consultation is required to determine appropriate contributions to potential improvements.

11. CONSTRUCTION AND PHASING

11.1. INTRODUCTION

11.1.1. This Chapter summarises the potential impacts related to traffic associated with the construction of the Proposed Development. It is anticipated that a Construction Logistics Plan (CLP), or similar, will be submitted to WSCC / HDC for approval prior to the commencement of on-site works, with this to be secured by an appropriately worded condition. An outline Construction Environmental Management Plan (CEMP) has been submitted as part of this application.

11.1.2. It is projected that the principal aims of any CLP would be:

1. Identify surrounding constraints and opportunities for the delivery and operation of freight associated with the construction of the Proposed Development;
2. Identify potential opportunities for reducing, re-timing or combining deliveries;
3. Forecast estimated trip generation associated with construction and explore solutions to help to minimise congestion on the surrounding highway network and ease environmental pressures;
4. Explore solutions to improve the reliability of deliveries to the Site; and
5. Identify the needs and requirements of a future Detailed CLP, which it is anticipated will be prepared once a Principal Contractor is appointed.

11.1.3. It is envisaged that the CLP will be prepared based on the above objectives to identify how traffic will be managed throughout the duration of the construction stage. The CLP will also outline how pedestrian and cycle traffic will be safely and effectively managed, including those associated with the closure and/or diversions of footpaths, footways or cycle routes due to remediation/construction works within or outside the public highway.

11.1.4. A summary of the anticipated construction programme and forecasted construction traffic and impact is provided herein. As set out above, it is envisaged that this will be refined as part of a forthcoming CLP, or similar.

11.2. PHASING

11.2.1. The following broad phasing is anticipated, noting these are indicative and might be subject to change once a Principal Contractor is appointed and construction works are being progressed thereafter.

- **Phase 1a**: Construction of the Worthing Road access and the Primary Road from Worthing Road to the Secondary School. The Secondary School and Local centre will be included within Phase 1 of the development;
- **Phase 1b:** the residential parcels in the northern section of the development alongside the main site access roundabout to the development just south of the Hop Oast roundabout. The Gypsy and Traveller pitches and access will be delivered in this phase;
  Phase 2: Construction of the secondary road from the proposed Primary Road to connect into Chessel Avenue and Broadacres, this will include the residential parcels alongside the road. The sports pitches will be delivered in this phase at the southern end of the site;
- **Phase 3**: the residential parcels in the south western corner of the development ; and

- **Employment Phase**: The employment land will be delivered within its own phase following the completion of the access roundabout.

11.3. CONSTRUCTION ACCESS

11.3.1. It is anticipated that access to the Site for construction vehicles will be via different routes, with different construction access points being provided based on the respective phase of the development.

11.3.2. In principle, construction material deliveries will predominantly arrive at the site via the A24, although the exact routes will be agreed with the Applicant / contractor and WSCC prior to commencement of construction work. These routes will be identified and set out in writing as part of the forthcoming CLP.

11.4. CONSTRUCTION TRAFFIC

11.4.1. Considering the scale of the Site and the different elements of the Proposed Development (i.e. different land uses such as commercial, educational and residential), the calculations to estimate forecast vehicular demand and traffic distribution have been based on a range of factors and assumptions from experience of similar Sites. In particular, residential build-out rate is anticipated to be 100 units per year, although for the purposes of a robust assessment it is assumed to be up to 125 units per year.

11.4.2. In summary, the average number of vehicular trips associated with Site personnel and deliveries/construction works are summarised in **Table 11-1**. LGVs include cars as well as vans and other contractor vehicles that are not classified as an HGV. All movements are two-way.

Table 11-1 – Average number of Vehicular Construction Trips Associated with the Site

Vehicular Demand	Yearly		Daily - AAWT		Daily – AADT	
	LGV	HGVs	LGV	HGVs	LGV	HGVs
No. Veh.	90,399	10,447	294	44	186	34

11.4.3. The forecasted distribution of vehicles along the different routes is provided in **Table 11-2** below, considering traffic management to encourage use of the A24 as the main route for construction vehicles.

Table 11-2 – Construction Traffic forecast distribution

Link/ Direction	Route Number	% Distribution split (managed routes)		Daily - AADT	
		Total Vehicles	HGVs	LGV	HGVs
A24 North	1	20%	20%	37	7
A24 South	2	20%	20%	37	7
A264 E	3	20%	20%	37	7
A272 E	4	20%	20%	37	7
A272 W	5	20%	20%	37	7
			Total*	186	34

*Error in totals due to rounding

11.4.4. Based on the above figures, it is considered that the number of average daily trips forecasted to be introduced along the different highway routes is not significant in comparison with existing flows along the same routes. In accordance with this, it is concluded that the Proposed Development traffic generation associated with the construction works will not be detrimental to the public highway surrounding the Site, particularly after accounting for the mitigation measures that would be incorporated as part of the CLP, a summary of which is provided later in this Chapter.

11.5. CLP CONSIDERATIONS AND CHALLENGES

11.5.1. This section sets out the projected key considerations and challenges that will be discussed within the CLP.

- Neighbouring Construction Sites - A review of construction sites in the local area will take place once a fixed construction programme has been defined. This will identify overlapping construction periods and assist in assessing the feasibility of freight consolidation opportunities and cumulative impacts of construction operations in the area.
- Local Residents - Proposed measures to reduce disruption to local residents, such as the timing of 'out of peak' and 'out of hours' deliveries, will aim to limit impacts on residential areas. This includes existing local residents as well as those that will move in to completed dwellings during the course of construction.
- Waiting areas for Deliveries – On-site waiting areas will be to avoid delivery vehicles parking on residential streets outside site working hours.
- Non-Motorised Users (NMU) – A detailed review of the impact of construction on NMUs will be undertaken for each phase and detailed in the CLP. This includes NMUs within the Site – both along new routes that will be constructed as part of the Proposed Development as well as on the existing PRoWs within the Site – as well as NMUs close to the Site that may be impacted by the works (e.g. NMU's crossing construction access points on the public highway).

- Road Network - As part of this Outline CLP, impacts on both the strategic and local road networks have been considered at a high level through the routeing of construction vehicles to and from the Site. This will be considered in more detail in the CLP and, once a Principal Contractor is appointed, the total number and distribution of construction vehicles will be defined in detail.
- Bus Services Impact - It is anticipated that the construction of the Proposed Development will not materially impact local bus services, including existing bus stops and routing of buses. This will however be reviewed in detail within the CLP.
- Freight By Rail - The opportunities of rail freight will be considered as a potential transport mode option to explore to undertake construction deliveries and reduce length of construction vehicular trips and associated impact in the wider highway network.

11.6. CLP MITIGATION

A range of mitigation measures will be set out as part of the CLP in order to minimise the construction impacts associated with the Proposed Development. A summary of some of the potential mitigation measures is set out below.

- Construction Access Strategy - a detailed construction access strategy will be devised, setting out the identified construction access route(s), general development access route(s) and NMU access route(s) for each construction phase. This will primarily seek to minimise the impact of construction related traffic on NMUs and non-construction related traffic.
- Standard Working Hours - it is anticipated that the standard working hours will be 0800 hours to 1800 hours on weekdays, 0800 hours to 1300 hours on Saturdays and no working on Sundays or Bank Holidays. This will however be reviewed against relevant guidance and through discussions with WSCC / HDC and set out within the CLP. Any exceptions to standard working hours / practices would be agreed with WSCC / HDC in advance.
- Delivery Hours - liaison with WSCC / HDC and other relevant bodies will take place to ensure that deliveries of materials to the Site occur outside of highway peak hours, where practical. Waiting areas will be provided on-site to avoid HGVs parking on streets in early mornings outside of peak hours.
- Materials - materials will be re-used where possible so that waste and vehicular trips are minimised.
- NMUs –appropriate mitigation in respect to NMUs will be provided at all times. This may include Temporary diversions to PRoWs within the Site if required.
- Access for Site Personnel - all construction personnel will be advised not to park on-street in the vicinity of the Site and will be encouraged to use public transport, walk or cycle to work wherever possible. A particular focus will be made on car sharing, and car parking will be provided on Site.
- Wheel Washing - wheel washing facilities will be provided on-Site to ensure that no deleterious material is transferred onto the highway network as far as is reasonably possible.
- Road sweeping on surrounding roads and dust prevention - measures will be put in place to ensure road sweeping is undertaken on local roads if necessary and that dust is kept to a minimum level wherever possible.

11.6.1. Contractors shall commit to operating as a good neighbour throughout the course of the project.

11.7. CLP IMPLEMENTATION, MONITORING AND UPDATING

11.7.1. It is envisaged that the CLP will set out measures relating to the implementation, monitoring and updating of the CLP and its associated elements. A summary of the envisaged format for this is set out below.

11.7.2. The Principal Contractor will look to nominate a member of staff to be responsible for the day-to-day organisation and monitoring of the construction logistics for the construction site (i.e. Logistics Manager). The responsibilities of this Logistics Manager role will include the implementation and management of the CLP for the lifetime of the construction project.

11.7.3. As well as planning and co-ordinating the day-to-day deliveries, on-site arrangements to accommodate delivery vehicles, and the arrangements for special deliveries, the Logistics Manager will liaise with nominated representatives of other on-going construction projects in the area to determine the feasibility of consolidation of vehicle activity and other measures to support the running of the CLP where practical to do so. The Logistics Manager will also liaise regularly with key personnel at WSCC and HDC.

11.7.4. The Logistics Manager will also be responsible for liaison with local residents and groups. This could include local forums to discuss comments and suggestions.

11.7.5. WSCC and HDC will be notified of the nominated individual prior to commencement of activities during demolition and construction. The CLP will be a 'live' document and will be regularly reviewed with key stakeholders and updated throughout the project's construction. It is anticipated the CLP will be reviewed annually. Should updates be required, these will be undertaken and an updated version issued to WSCC / HDC and other key stakeholders for review and information. Should the annual review identify that no material changes are required, this too will be articulated to WSCC / HDC and key stakeholders.

11.7.6. The Logistics Manager will monitor vehicle movements on a regular basis and will carry out surveys of vehicle movements and routeing at regular intervals throughout the construction project, as required. An appropriate schedule of surveys will be identified upon the appointment of a contractor in agreement with WSCC and HDC.

11.7.7. In addition, it is anticipated that the following aspects of the construction project logistics will be monitored:

- Early deliveries / collections and those seeking to wait on surrounding public highway so that the subcontractor and / or supplier can be notified and warned of the need to follow the strategies articulated in this document;
- The number of vehicle movements to assist in minimising impacts during peak construction times; and,
- Construction staff travel patterns.

11.8. SUMMARY

11.8.1. This Chapter considers matters relating to the construction of the Proposed Development and sets out the broad parameters that will be considered as part of a forthcoming Construction Logistics Plan (CLP) or similar.

11.8.2. The CLP will minimise impacts of the construction works on users of the existing highway network within the vicinity of the proposed development, as well as those within the Site during construction works - including residents moving into newly constructed dwellings and users of PRoWs within the Site.

11.8.3. The CLP will be produced / updated with input from a Principal Contractor once appointed. Alongside this, it is expected that a Logistics Manager will be appointed. As such, the CLP will be a live document that will evolve and be updated as the Proposed Development is constructed.

12. SUMMARY AND CONCLUSIONS

12.1. SUMMARY

12.1.1. WSP is commissioned by Berkeley Strategic Limited ('Berkeley') to provide transportation advice in support of the delivery of a residential-led development at the Land North West of Southwater Site (the 'Site').

12.1.2. The Site is located to the west of Worthing Road, Southwater within the administrative boundaries of Horsham District Council (HDC) as Local Planning Authority (LPA) and West Sussex County Council (WSCC) as Highway Authority (HA).

12.1.3. The description of the Site is as follows:

"Outline planning application, with all matters reserved (except for primary access to the highway) for a phased development comprising: the demolition of existing buildings and the construction of residential dwellings (including affordable housing) (Use Classes C2 and C3); a mixed-use neighbourhood centre (Use Classes E and F); education facilities (Use Class F1(a)); business and employment floorspace (Use Classes B2, B8 and E(g)); redevelopment of existing agricultural buildings including construction of a building for community use (Use Classes E and F2); improvements to public rights of way; sports pitches; gypsy and traveller pitches/plots; public open space; landscaping, and associated infrastructure."

12.1.4. The Site has been subject to a number of assessments since 2018 when it was included in the draft Southwater Neighbourhood Plan (September 2018). In the summer of 2022 WSP submitted a Transport Assessment to support a Planning Application on the Site for the following development proposals

12.1.5. Extensive pre-application discussions have been held with WSCC as HA, as well as other key stakeholders, this builds upon the 2022 application. This TA and associated documentation has been prepared based on feedback received during this process.

12.1.6. This TA demonstrates the Proposed Development will not have an unacceptable impact on safe and efficient operation of the local transport network after accounting for the mitigation measures that will be implemented as part of the Development, or towards which an appropriate contribution will be made as part of the Development.

12.1.7. This includes:

- Improvements to the local walking and cycling network, as set out in the Walking and Cycling Strategy;
- Improvements to local bus service provision, as set out in the Public Transport Strategy;
- Travel Planning Measures – A Framework Travel Plan is submitted with the Application; and
- Signalisation of the Hop Oast roundabout to allow for safe crossing of pedestrians and cyclists across the A24 and to increase capacity of the junction for motorised vehicles.

12.1.8. In particular, it is noteworthy that the Proposed Development incorporates – or would provide contributions towards - various connections, routes and upgrades for pedestrians and cyclists within the Site and local off-site areas, including suitable connections to Southwater, Horsham and Christ's Hospital. These are detailed in the Walking and Cycling Strategy within this TA.

12.1.9. There are various existing facilities in the local area, connections to which will be enhanced as part of the Proposed Development. The additional facilities proposed on the Site itself, including the proposed schools and employment areas, will complement these existing facilities, including for existing residents of Southwater – whilst not detracting from the existing local facilities, including those at Lintot Square.

12.1.10. Various additional 'soft' and 'hard' sustainable transport measures would be incorporated as part of the Proposed Development. In particular, a Public Transport Strategy has been prepared - as set out in this TA - which sets out the likely optimum strategy as being enhancements to the existing 23 bus service alongside the enhancements to the 98 being delivered by the Gold Course site, including the potential for rerouting of services through the northern part of the Site.

12.1.11. Stage 1 Road Safety Audit's will be undertaken of all the Highway Access Arrangements and Off-site Walking and Cycling plans following agreement in principle with the WSCC, this will be undertaken during the determination period.

12.1.12.

12.1.13. A Framework Travel Plan, setting out measures and targets for minimising single occupancy car use, has also been provided as part of the application and should be read in conjunction with this TA.

12.1.14. Whilst the application is submitted as outline with all matters reserved, this TA also demonstrates that that safe and appropriate access to the Site can be achieved for all users, including vehicular and non-vehicular modes.

12.2. CONCLUSIONS

12.2.1. On the basis of the above, the Proposed Development accords with relevant National and Local Policy guidance as set out at Section 2 of this TA. The Proposed Development represents a high-quality, sustainable development that can provide suitable access for all users and maximises the opportunities for travel by non-car modes.

12.2.2. The Transport Assessment has presented how the Proposed Development is in accordance with Strategic Policy HA3, in terms of development quantum alongside the active and sustainable strategies.

12.2.3. The impact of the Proposed Development on the highway network, after accounting for the identified mitigation has been evidenced not to be severe. To this end – and in line with paragraphs 115 and 116 of the NPPF - the Proposed Development would not have an unacceptable or severe residual cumulative impact on traffic congestion or road safety and should therefore be supported.

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